

## Overview of planned or ongoing studies of drugs for the treatment of COVID-19

### Table of contents

Antiviral drugs.....	4
Remdesivir .....	4
Lopinavir + Ritonavir (Kaletra) .....	7
Favipiravir (Avigan) .....	14
Darunavir + cobicistat or ritonavir .....	18
Umifenovir (Arbidol) .....	19
Other antiviral drugs .....	20
Antineoplastic and immunomodulating agents .....	24
Convalescent Plasma .....	24
Immunoglobulins.....	46
Monoclonal antibodies.....	47
Tocilizumab (RoActemra) alone or in combination with other drugs.....	47
Sarilumab (Kevzara) .....	54
Siltuximab (Sylvant) .....	57
Bevacizumab (Avastin).....	58
Other monoclonal antibodies .....	58
Interferons.....	67
Protein kinase inhibitors .....	71
Ruxolitinib (Jakavi) .....	71
Baricitinib (Olmiant).....	75
Other protein kinase inhibitors.....	76
Other immunomodulating drugs.....	78
Anti-inflammatory drugs .....	93
Leflunomide .....	93
Colchicine .....	94
Naproxen .....	97
Ibuprofen .....	97
Piclidenoson (CF101).....	98
Glucocorticoids .....	98
Stem cell therapy.....	103
Cardiovascular drugs .....	118
Angiotensin receptor blocker or ACE inhibitor.....	118
Other .....	122
Spironolactone.....	122
Amiodarone and Verapamil .....	122
Prazosin.....	122
Ifenprodil.....	123
Atorvastatin .....	124
Blood and blood forming organs .....	124
Alteplase .....	124
Aspirin .....	124
Defibrotide.....	125
Tranexamic acid .....	125
Tinzaparin.....	125

Antitrombin.....	126
Dipyridamide.....	126
Dociparstat sodium.....	127
Enoxaparin.....	127
Heparin.....	131
Nafamostat.....	132
Ilomedin.....	132
Plasminogen Activator.....	133
Prolongin.....	133
Ulinastatin.....	133
ACE-2.....	133
Angiotensin 1-7.....	134
Chloroquine or hydroxychloroquine.....	135
Other drugs studied for the treatment or prevention of COVID-19.....	173
Alimentary tract and metabolism.....	173
Bismuth potassium citrate.....	173
Dapagliflozin.....	173
Famotidine.....	173
Linagliptin.....	174
Microbiota.....	174
MRx-4DP0004.....	175
ResCure.....	175
Probiotics.....	175
Sitagliptin.....	176
Vitamins and minerals.....	176
Isotretinoin.....	182
Genito urinary system and sex hormones.....	183
Aviptadil.....	183
Progesterone.....	183
Sildenafil.....	184
Other systemic hormonal preparations.....	184
Triiodothyronine (T3).....	184
Estradiol Patch.....	184
Oxytocin.....	184
Other antiinfectives for systemic use.....	184
Azithromycin.....	184
Clarithromycin.....	186
Doxycycline.....	186
Itraconazole.....	186
Kolimycin.....	186
Nervous system.....	186
Chlorpromazine.....	186
1,3,7-Trimethylxanthine.....	187
Dexmedetomidine.....	187
Fluvoxamine.....	187
Melatonin.....	187
Metenkefalin + Tridecactide.....	188
Naltrexone and Ketamine.....	188
Pyridostigmin.....	188

Sevoflurane .....	188
Vafidemstat,.....	188
Antiparasitic products, insecticides and repellents.....	189
Artesunate .....	189
Dihydroartemisinin piperaquine .....	189
Ivermectine .....	190
Suramin sodium .....	196
Respiratory system.....	196
Almitrine .....	196
Acetylcystein .....	196
Bromhexine.....	197
Dornase Alfa.....	197
Ebastine.....	198
Hydrogen-oxygen nebulizer .....	198
Lucinactant.....	199
Montelukast.....	199
Nitrogen oxide .....	199
Nebulized amniotic fluid .....	201
Other .....	203

## Antiviral drugs

## Remdesivir

## Nucleosid inhibitor, not licensed

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Remdesivir Sponsor: Capital Medical University	<a href="https://clinicaltrials.gov/ct2/show/NCT04252664?cond=COVID-19&amp;draw=2&amp;rank=1">https://clinicaltrials.gov/ct2/show/NCT04252664?cond=COVID-19&amp;draw=2&amp;rank=1</a> NCT04252664	Hubei, China	A Phase 3 Randomised, Double-blind, Placebo-controlled Multicenter Study  N=308 hospitalized Adult Patients With Mild and Moderate 2019-nCoV Respiratory Disease randomised to Remdesivir, or placebo	Time to Clinical Recovery defined as the time (in hours) from initiation of study treatment (active or placebo) until normalisation of fever, respiratory rate, and oxygen saturation, and alleviation of cough, sustained for at least 72 hours.	Recruiting; Estimated study completion: April 27, 2020  Update 15.04.2020: Suspended (The epidemic of COVID-19 has been controlled well at present, no eligible patients can be recruited.)	High
Remdesivir Sponsor: Capital Medical University	<a href="https://clinicaltrials.gov/ct2/show/NCT04257656?term=remdesivir&amp;draw=2&amp;rank=1">https://clinicaltrials.gov/ct2/show/NCT04257656?term=remdesivir&amp;draw=2&amp;rank=1</a>  NCT04257656	Beijing, China	A Phase 3 Randomised, Double-blind, Placebo-controlled, Multicenter Study  N= 453 Hospitalized Adult Patients With Severe 2019-nCoV Respiratory Disease randomised to Remdesivir, or placebo	Time to Clinical Improvement (TTCI), two steps in a Six-category ordinal scale: 1 (discharged) to 6 (death), censoring at day 28	Terminated; Estimated study completion: May 1, 2020  Update 15.04.2020: Terminated (The epidemic of COVID-19 has been controlled well in China, no eligible patients can be enrolled at present.)  Update 30.04.2020: Results published in Lancet	High
Remdesivir Sponsor: National Institute of Allergy and Infectious Diseases (NIAID)	NCT04280705 EudraCT number: 2020-001052-18	Up to 50 sites globally; Maryland, Nebraska, Texas, Washington, US; Korea	Phase 3 Multicenter, Adaptive, Randomised Blinded Controlled Trial N=440 Hospitalized Adults with covid-19 randomised to Remdesivir, or Placebo	Percentage of subjects reporting each severity rating on the 7-point ordinal scale (death – not hospitalized), timeframe day 15	Recruiting; Estimated primary completion: April 2023	High

		Denmark	Update: at least 800 patients will be included		Update: 30.04.2020: Preliminary results presented by NIAID	
Remdesivir Sponsor: Gilead Sciences  Simple trial	NCT04292730  EudraCT number: 2020-000841-15	China, France, Germany, Hong Kong, Italy, Japan, Korea, Netherlands, Republic of Singapore, Spain, Sweden, Taiwan, UK, US	Phase 3 open label randomised controlled trial. N=600 1600 patients with moderate covid-19 randomised 1:1:1 to Remdesivir 100 mg for 5 days, Remdesivir 100 mg for 10 days, or standard of care  Extension of the study with more patients	Proportion of participants in each group discharged by day 14. The Odds of Ratio for Improvement on a 7-point Ordinal Scale on Day 11 [ Time Frame: Day 11 ]	Recruiting;  Estimated primary completion May 2020	High
Remdesivir Sponsor: Gilead Sciences  Simple trial	NCT04292899  EudraCT number: 2020-000842-32	China, France, Germany, Hong Kong, Italy, Japan, Korea, Netherlands, Republic of Singapore, Spain, Sweden, Taiwan, UK, US	Phase 3 open label randomised controlled trial. N=400 6000 patients with severe covid-19 randomised to Remdesivir 100 mg for 5 days, or Remdesivir 100 mg for 10 days.  Extension of the study. More patients have been added and patients who are mechanically ventilated are included	Proportion of Participants With Normalization of Fever and Oxygen Saturation Through Day 14 The Odds of Ratio for Improvement on a 7-point Ordinal Scale on Day 14 [ Time Frame: Day 14 ]	Recruiting,  Estimated study completion May 2020  Update 30.04.2020: Preliminary results presented by Gilead	High
Remdesivir	Early news: <a href="https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments">https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments</a>  WHO Solidarity and Discovery  NCT04315948  Canada: NCT04330690  Norway: 2020-000982-18, NCT04321616 Spain: 2020-001366-11	EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway, Italy N=3200  ROW: Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand  More countries are expected to join. As of March 27 2020, over 70 countries have	Adaptive, randomised open clinical trial to one of 4 treatments	Subject clinical status (on a 7-point ordinal scale) on Day 15	Recruiting;  Estimated study completion: March 2023	High

		confirmed they will contribute to the trial				
Remdesivir + Baricitinib  Sponsor: National Institute of Allergy and Infectious Diseases (NIAID)	Early news: <a href="https://www.niaid.nih.gov/news-events/news-releases">https://www.niaid.nih.gov/news-events/news-releases</a>  NCT04401579	Japan, Singapore, United States	Phase 3 Multicenter, Adaptive, Randomized Blinded Controlled Trial of the Safety and Efficacy of Investigational Therapeutics for the Treatment of COVID-19 in Hospitalized Adults (ACTT-II)  N=1032 adult admitted to a hospital with symptoms suggestive of COVID-19 (PCR-confirmed). Illness severity defined by at least 1 of 4 listed criteria.	Time to recovery [ Time Frame: Day 1 through Day 29 ]: Day of recovery is defined as the first day on which the subject satisfies one of the following three categories from the ordinal scale: 1) Not hospitalized, no limitations on activities; 2) Not hospitalized, limitation on activities and/or requiring home oxygen; 3) Hospitalized, not requiring supplemental oxygen and no longer requires ongoing medical care.	Recruiting  Estimated Primary Completion Date: August 1, 2023	High
Remdesivir Expanded Access  Treatment IND/Protocol: Allows a large, widespread population access to a drug or biological product that has not been approved by the FDA. This type of expanded access can only be provided if the product is already being developed for marketing for the same use as the expanded access use.	NCT04323761  Amendment to study NCT04292730	Louisiana, New Jersey, New York	Expanded Access Treatment Protocol: Remdesivir (RDV; GS-5734) for the Treatment of SARS-CoV2 (CoV) Infection  Inclusion criteria: Hospitalized with confirmed SARS-CoV2 by polymerase chain reaction (PCR) or known contact of confirmed case with syndrome consistent with coronavirus disease (COVID-19) with PCR pending Requiring invasive mechanical ventilation	Not applicable	Not applicable	Medium
Remdesivir Expanded access  Sponsor: U.S. Army Medical Research and Development Command	NCT04302766	US	Intermediate-Size Patient Population Expanded Access Treatment Protocol for COVID-19;  Inclusion criteria: DoD-affiliated personnel as defined in DoDI 6200.02, which includes emergency-essential civilian employees and/or contractor personnel accompanying the Armed Forces who are subject to the same health risk as military personnel	Not applicable	Not applicable	Medium

Remdesivir  Sponsor: Gilead	Eudract: 2020-001453-49  <a href="https://www.aifa.gov.it/web/guest/-/covid-19-aifa-autorizza-programma-di-uso-compassionevole-con-remdesivir">https://www.aifa.gov.it/web/guest/-/covid-19-aifa-autorizza-programma-di-uso-compassionevole-con-remdesivir</a> <a href="https://www.aifa.gov.it/documents/20142/1144520/Remdesivir_documento.zip">https://www.aifa.gov.it/documents/20142/1144520/Remdesivir_documento.zip</a>	France Germany Italy Spain Switzerland United Kingdom	Expanded Access Treatment Protocol: Remdesivir (RDV;GS-5734) for the Treatment of SARS-CoV2 (CoV) Infection- COVID-19  Intubated adult patients with critically COVID-19.	The incidence rate of treatment emergent adverse events	Ongoing  Estimated primary completion. 10.10.2020	Medium
Remdesivir vs Hydroxychloroquine, Azithromycin vs Hydroxychloroquine, Doxycycline vs Hydroxychloroquine, Clindamycin vs Hydroxychloroquine, Clindamycin, Primaquine - low dose vs Hydroxychloroquine, Clindamycin, Primaquine - high dose vs Tocilizumab vs Methylprednisolone vs Interferon-Alpha2B vs Losartan vs Convalescent Serum	NCT04349410	US, California	Open label randomized controlled trial. N=500 patients with COVID-19 Randomized into 1 of 11 treatment arms	Improvement in FMTVDM Measurement with nuclear imaging. [ Time Frame: 72 hours ]  FMTVDM: Fleming Method for Tissue and Vascular Differentiation and Metabolism	Enrolling by invitation; Estimated Primary Completion Date : October 11, 2020	Low
Remdesivir  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04365725	France (multicenter)	Retrospective cohort trial of the effects of Remdesivir in the treatment of severe Covid-19 infections.  N=200 subjects ≥ 18 years with confirmed SARS-CoV-2 infection	Clinical course on Day 15. [ Time Frame: 15 days ]	Not yet recruiting  Estimated primary 25.04.2020	Low

## Lopinavir + Ritonavir (Kaletra)

Protease inhibitors, indicated for HIV infection

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
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<p>Lopinavir+ Ritonavir</p> <p>Sponsor: Tongji Hospital</p>	<p><a href="https://clinicaltrials.gov/ct2/show/NCT04255017?draw=2">https://clinicaltrials.gov/ct2/show/NCT04255017?draw=2</a></p> <p>NCT04255017</p>	<p>Tongji Hospital, Hubei, China</p>	<p>Phase 4 single blinded, Prospective, Randomised Controlled Cohort Study to Compare the Efficacy of Three Antiviral Drugs (Abidol Hydrochloride (Umifenovir), Oseltamivir and Lopinavir/Ritonavir) in the Treatment of 2019-nCoV Pneumonia.</p> <p>N=400 patients with CT manifestation of viral pneumonia + mCoV positive randomised to Abidol hydrochloride, Oseltamivir, or Lopinavir/ritonavir</p>	<p>Rate of disease remission (Time Frame: two weeks)</p> <p>Time for lung recovery (Time Frame: two weeks)</p>	<p>Recruiting;</p> <p>Estimated primary completion: June 1, 2020</p>	<p>High</p>
<p>Lopinavir + Ritonavir</p>	<p>Early news: <a href="https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments">https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments</a></p> <p>WHO Solidarity and Discovery</p> <p>NCT04315948</p> <p>Canada: NCT04330690</p> <p>Spain: 2020-001366-11</p>	<p>EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway, Italy N=3200</p> <p>ROW: Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand</p> <p>More countries are expected to join</p>	<p>Adaptive, randomised open clinical trial to one of 4 treatments</p>	<p>Subject clinical status (on a 7-point ordinal scale) on Day 15</p>	<p>Recruiting;</p> <p>Estimated study completion: March 2023</p>	<p>High</p>
<p>Lopinavir + Ritonavir in combination with Interferon-beta</p>	<p>Early news: <a href="https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments">https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments</a></p> <p>WHO Solidarity and Discovery</p> <p>NCT04315948</p>	<p>EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway, Italy N=3200</p> <p>ROW: Argentina, Bahrain,</p>	<p>Phase 2, adaptive, randomised open clinical trial to one of 4 treatments</p>	<p>Subject clinical status (on a 7-point ordinal scale) on Day 15</p>	<p>Recruiting;</p> <p>Estimated study completion: March 2023</p>	<p>High</p>

	NCT04330690 (Canadian arm)  Spain: 2020-001366-11	Canada, Iran, South Africa, Switzerland and Thailand  More countries are expected to join				
Lopinavir and ritonavir	NCT04328285	France, Angers, Paris, Saint Etienne	A 2-step randomized double-blind placebo-controlled clinical trial. N=600 health care workers randomised to Lopinavir and ritonavir or placebo  First step concerns a trial with hydroxychloroquine, see below	Occurrence of an symptomatic or asymptomatic SARS-CoV-2 infection among healthcare workers [ Time Frame: Up to 2.5 months ]	Not yet recruiting; Estimated Primary Completion: November 30, 2020	High
lopinavir/ritonavir Hydroxychloroquine Sulfate Losartan  Sponsor: Bassett Healthcare	NCT04328012	US	Randomized, double blind, placebo controlled clinical trial N=4000 Hospitalized patients with COVID-19 randomised to lopinavir/ritonavir, Hydroxychloroquine Sulfate, Losartan, or placebo	NIAID COVID-19 Ordinal Severity Scale (NCOSS) [ Time Frame: 60 days ]	Not yet recruiting; Estimated Primary Completion; January 1, 2021	High
Lopinavir/ritonavir Hydroxychloroquine Hydroxychloroquine + lopinavir/ritonavir Vs No intervention	NCT02735707 REMAP-CAP link <a href="https://www.remapcap.org">https://www.remapcap.org</a> . The trial protocol: <a href="https://www.remapcap.org/protocol-documents">https://www.remapcap.org/protocol-documents</a>  REMAP-CAP: Randomized, Embedded, Multifactorial Adaptive Platform trial for Community-Acquired Pneumonia	USA, Global	Platform trial, including 3 active arms with:  Lopinavir/ritonavir, Hydroxychloroquine, Hydroxychloroquine + lopinavir/ritonavir, or no intervention	Patients: community-acquired pneumonia, including COVID-19 patients, who require ICU care for the support of organ functions Outcome The primary endpoint for all domains will be all-cause mortality at 90 days The REMAP-CAP platform trial as a whole will recruit app. 7000 patients from study sites across Asia-Pacific, Europe and North America excluding US.	REMAP-CAP is ongoing Estimated primary completion: December 2021	High
Lopinavir/ritonavir  Hydroxychloroquine	The trial is registered at: <a href="https://www.anzctr.org.au/Trial/Registration/Trial.asp?id=12620000445976">ACTRN12620000445976</a>	Australia, New Zealand and across the world.	RCT active control Participants will be randomised in a 1:1:1:1 ratio to the standard of care or 3 treatment arms,	Patients with confirmed SARS-CoV-2 by nucleic acid testing in the past 12 days Proportion of participants alive and not having required intensive respiratory support (invasive or non-invasive ventilation or humidified high flow nasal oxygen flow) at 15 days after enrolment.	Not yet recruiting	High

Lopinavir-Ritonavir, Hydroxychloroquine, Corticosteroids, Azithromycin, Tocilizumab  Sponsor: University of Oxford	NCT04381936  (RECOVERY)	United Kingdom	A phase 2/3 open-label randomized trial investigating whether treatment with either Lopinavir-Ritonavir, Hydroxychloroquine, Corticosteroids, Azithromycin or Tocilizumab prevents death in patients with COVID-19 compared to standard care.  N = 12000 hospitalized patients	All-cause mortality [ Time Frame: Within 28 days after randomisation ]	Recruiting  Estimated Primary Completion Date: December 2020	High
Hydroxychloroquine + lopinavir/ritonavir  Sponsor: Vanderbilt University Medical Center	NCT04372628	United States, multiple sites	A phase 2, triple-blinded, placebo-controlled, randomized clinical trial evaluating hydroxychloroquine vs lopinavir/ritonavir vs placebo in early outpatient treatment of adults with COVID-19  N = 900 non-hospitalized COVID-19 patients	1.Modified COVID Ordinal Outcomes Scale: Study Day 15 a.Death b.Hospitalized on mechanical ventilation or extracorporeal membrane oxygenator (ECMO) c.Hospitalized on supplemental oxygen d.Hospitalized not on supplemental oxygen e.Not hospitalized with symptoms and limitation in activity f.Not hospitalized with symptoms but with no limitation in activity g.Not hospitalized without symptoms nor limitation in activity symptoms at the milder end of the scale for this outpatient trial	Not yet recruiting  Estimated Study Completion Date: May 1, 2021	High
Hydroxychloroquine and Lopinavir/ Ritonavir  Sponsor: Cardresearch	NCT04403100	Brazil	Phase 3, randomized, double-blind study.  N=1968 patients with RT-PCR diagnosis of COVID-19 or a clinical condition compatible with COVID-19 and respiratory symptoms. Randomization 1:1:1:1 to Lopinavir / Ritonavir or Hydroxychloroquine or Lopinavir / Ritonavir + Hydroxychloroquine or placebo.	1. Proportion of participants who were hospitalized for progression of COVID-19 disease [ Time Frame: Measuring during 28-day period since randomization (Intention to treat analysis) ]  2. Proportion of participants who died due to COVID-19 progression and/ or complications [ Time Frame: Measuring during 28-day period since randomization (Intention to treat analysis) ]	Not yet recruiting  Estimated Primary Completion Date: August 28, 2020	High
Lopinavir + Ritonavir  Sponsor: Darrell Tan	NCT04321174	Canada, Ontario	Post exposure prophylaxis. Open label randomised trial N=1220 High risk close contact with a confirmed COVID-19 case	Microbiologic evidence of infection [ Time Frame: 14 days ]	Not yet recruiting; Estimated Primary Completion: March 31, 2021	Medium
Lopinavir + Ritonavir vs	Recovery trial <a href="https://www.recoverytrial.net/">https://www.recoverytrial.net/</a>	UK	Adaptive, open label randomised controlled trial.	In-hospital death, discharge, and need for ventilation. Time frame 28 days	Ongoing	Medium

Interferon 1 $\beta$ vs Low-dose Corticosteroids vs Hydroxychloroquine.  Sponsor: University of Oxford	EudraCT 2020-001113-21		N=2000 hospitalised patients with covid-19 are randomised to 1 of 5 treatment arms in addition to usual standard of care: No additional treatment, Lopinavir-Ritonavir, Interferon 1 $\beta$ , Low-dose Corticosteroids, or Hydroxychloroquine.		Estimated primary completion: 2030?	
Lopinavir + Ritonavir Arbidol  Sponsor: Guangzhou 8th People's Hospital	NCT04252885	Guangdong, China	Open label, 125 patients Randomised 2:2:1 to Lopinavir /Ritonavir Tablets, Arbidol, or ordinary treatment	The rate of virus inhibition	Recruiting;  Estimated primary completion: May, 30, 2020	Medium
Lopinavir + Ritonavir  Sponsor: First Affiliated Hospital of Zhejiang University	NCT04261907  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49075">http://www.chictr.org.cn/showproj.aspx?proj=49075</a>	Zhejiang University, China	Randomised, Open-label, Multi-centre Clinical Trial  N=160 patients with pneumonia caused by covid-19 randomised to ASC09/ritonavir or lopinavir/ritonavir	The incidence of composite adverse outcome (time frame 14 days)	Recruiting (according to Chinese website that was updated )  Estimated primary completion: May 31, 2020	Medium
Lopinavir + Ritonavir  Sponsor: Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology	ChiCTR2000029539  <a href="http://www.chictr.org.cn/showproj.aspx?proj=48991">http://www.chictr.org.cn/showproj.aspx?proj=48991</a> ChiCTR2000029603	Tongji, Hubei, China	Open label study.  N=328 Patients with mild covid-19 or unexplained viral pneumonia randomised 1:1 to conventional standardized treatment + Lopinavir/Ritonavir, or conventional standardized treatment	The incidence of adverse outcome within 14 days after admission: Patients with conscious dyspnea, SpO2 = 94% or respiratory frequency = 24 times / min in the state of resting without oxygen inhalation;	Recruiting;  From 2020-02-03 To 2021-02-02	Medium
Lopinavir + Ritonavir vs Carrimycin;  Carrimycin is licenced in China  Sponsor: Beijing YouAn Hospital	NCT04286503  ChiCTR2000029867	Beijing YouAn Hospital and other hospitals in China	A Multicenter, Randomised, Open-controlled Study,  N=520 patients stratified by severity, Randomised 1:1 to 1) carrimycin or 2) lopinavir/ritonavir or arbidol or chloroquine phosphate	Fever to normal time (day) (Time Frame: 30 days)  Pulmonary inflammation resolution time (HRCT) (day) (Time Frame: 30 days)  Negative conversion (%) of 2019-nCoV RNA in gargle (throat swabs) at the end of treatment (Time Frame: 30 days)	Not yet recruiting;  Estimated study completion, Feb 28, 2021	Medium

Lopinavir + ritonavir Hydroxychloroquine sulfate Baricitinib (janus kinase inhibitor) Sarilumab (anti-IL-6 receptor)	NCT04321993	Canada	Open label clinical trial. N=1000 hospitalised patients with moderate to severe COVID-19 randomised to Lopinavir + ritonavir, Hydroxychloroquine sulfate, Baricitinib, Sarilumab, or standard care	Clinical status of subject at day 15 (on a 7 point ordinal scale).	Not yet recruiting; Estimated Primary Completion: February 2021	Medium
Lopinavir/ritonavir Imatinib tablets Baricitinib Oral Tablet in combination with hydroxychloroquine  Sponsor: Hospital Universitario de Fuenlabrada	NCT04346147 EudraCT: 2020-001321-31	Spain	Prospective, Phase II, Randomized, Open-label, Parallel Group Study to Evaluate the Efficacy of Hydroxychloroquine Together With Baricitinib, Imatinib or Early Lopinavir / Ritonavir in Patients With SARS Cov2 Pneumonia  N=165 randomized to receive open treatment 1:1:1. 3 branches: lopinavir / ritonavir (200 /50), imatinib 400mg or baricitinib 4mg, all in combination with hydroxychloroquine 200mg, administered for 7 days.	Time to clinical improvement [ Time Frame: baseline to day 14 ]	Active, not recruiting  Estimated primary completion: August 2020	Medium
Lopinavir-Ritonavir, Hydroxychloroquine  Sponsor: University of Birmingham	NCT04386070  2020-001448-24	Not stated	Phase 3, randomized, open-label trial to reduce COVID-19 related pulmonary complications in adult patients undergoing all types of elective or emergency surgery in a COVID-19 exposed environment.  N=6400 subjects 16 years and older, asymptomatic of COVID-19 and planning to undergo any type of elective or emergency inpatient surgery requiring general or regional anaesthesia Randomized 1:1:1:1 to control (normal practice; neither trial drug) or Lopinavir-Ritonavir only or Hydroxychloroquine only or Lopinavir-Ritonavir + Hydroxychloroquine.	Pneumonia free survival; acute respiratory distress syndrome (ARDS) free survival; or death [ Time Frame: From randomisation until discharge from hospital, average less than 30 days ]	Not yet recruiting  Estimated Primary Completion Date: May 14, 2021	Medium

Lopinavir / ritonavir and interferon Sponsor: Diagnosis, treatment and Research Center for infectious diseases, the fifth medical center of the PLA	ChiCTR2000031196	China, Beijing	Nonrandomized study observing the antiviral efficacy and side effects of lopinavir / ritonavir tablets combined with interferon  N = 90. 2:1 (treatment:control)	Time till the SARS-CoV-2 clearance	Recruiting  From 2020-01-10 To 2020-12-31	Low
Lopinavir + ritonavir	ChiCTR2000029308	Hubei, China	Open label, randomised trial. N=160 randomised to lopinavir + ritonavir or conventional treatment	Clinical improvement time of 28 days after randomization	Ongoing; Duration: From2020-01-10 To 2021-01-10	Low
Lopinavir + Ritonavir	<a href="http://www.chictr.org.cn/showproj.aspx?proj=48824">http://www.chictr.org.cn/showproj.aspx?proj=48824</a>  ChiCTR2000002940	Wuhan, China	N=60 randomised to traditional Chinese medicine, Lopinavir/ritonavir, or traditional Chinese medicine + lopinavir/ritonavir	The rate of remission	Not Recruiting;  Estimated study completion: Dec 31, 2020	Low
Lopinavir + Ritonavir Vs Lopinavir + Ritonavir + Ribavirin + interferon beta1b	NCT04276688	Hong Kong	Phase 2 study Open-label randomised controlled trial among adult patients hospitalized and confirmed covid-19 infection  N=70 hospitalised patients with confirmed covid 19 infection randomised to Lopinavir/ritonavir or Lopinavir + Ritonavir + Ribavirin + interferon beta1b	Time to negative nasopharyngeal swab (NPS) 2019-n-CoV coronavirus viral RT-PCR	completed;  Estimated study completion: July 31, 2022  Update: 05.05.2020: Study completed March 30, 2020; no results posted yet; 127 patients recruited	Low
Lopinavir + Ritonavir + interferon +/- ribavirin  Sponsor: The University of Hong Kong	ChiCTR2000029387  <a href="http://www.chictr.org.cn/showproj.aspx?proj=48782">http://www.chictr.org.cn/showproj.aspx?proj=48782</a>  Link to study protocol: <a href="https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/32149772">https://www.ncbi.nlm.nih.gov/research/coronavirus/publication/32149772</a>	Chongqing, China	N= 108 patients with mild or moderate covid-19 randomised to Ribavirin + Interferon alpha-1b, lopinavir / ritonavir + interferon alpha-1b, or Ribavirin + LPV/r+Interferon alpha-1b;	The time to 2019-nCoV RNA negativity in patients;	Recruiting Study execute time: From 2020-01-25 to 2021-01-25	Low
Lopinavir + Ritonavir	ChiCTR2000030187 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50057">http://www.chictr.org.cn/showproj.aspx?proj=50057</a>	Hubei, China	N=60 randomised to lopinavir/ritonavir, or Routine symptomatic support treatment	Endotracheal intubation rate, time frame: 14 days Mortality, time frame: 14 days	Not yet recruiting;  From2020-02-25 To 2020-03-10	Low

Lopinavir + Ritonavir vs Hydroxychloroquine	NCT04307693	Seoul, Republic of Korea	Multicenter, open labelled, randomized clinical trial N=150 with mild covid-19 Randomised to Lopinavir/Ritonavir, Hydroxychloroquine, or Conventional treatment	Viral load (Time Frame 18 days)	Recruiting; Estimated study completion: May 2020	Low
Lopinavir + Ritonavir vs Arbidol vs ASC09/ Ritonavir (ASC09F)	ChiCTR2000029759 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49352">http://www.chictr.org.cn/showproj.aspx?proj=49352</a>	Chongqing	A multicenter, randomised, open label, controlled trial 60 patients randomised to  Lopinavir / Ritonavir (Kaletra) + IFN aerosol inhalation, Abidol and IFN aerosol inhalation, or ASC09/ Ritonavir (ASC09F) and IFN aerosol inhalation	Time to recovery.	From2020-02-15 To 2020-05-01	Low
Lopinavir + Ritonavir + emtricitabine /Tenofovir alafenamide fumarate	ChiCTR2000029468 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48919">http://www.chictr.org.cn/showproj.aspx?proj=48919</a>	Sichuan, China	Single arm study with historical controls Patients with covid-19 N=60 in the intervention arm N=60 historical controls	Patient survival rate	Not yet recruiting;  From 2020-02-01 To 2020-06-30	Low
Lopinavir + Ritonavir vs pinavir + ritonavir vs ritonavir	ChiCTR2000030218 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50115">http://www.chictr.org.cn/showproj.aspx?proj=50115</a>	Jiangxi, China	Randomised trial, blinding not stated; N=80 with mild or moderate covid-19 treated with Pinavir / ritonavir tablets combined with Xiyanning injection, or Ritonavir, or Lopinavir/ritonavir combined with Xiyanning injection	Clinical recovery time; Pneumonia Severity Index (PSI) score	Recruiting;  From2020-01-22 To 2020-06-25	Low
Lopinavir/Ritonavir  Sponsor: World Medicine ILAC SAN. ve TIC. A.S.	NCT04386876	Turkey	A phase 1, randomized, open-label study to assess the bioequivalence of Orvical 200 mg/50 mg FT in comparison with kaletra 200 mg/50 mg FT  N = 30 healthy male subjects under fasting conditions testing two different fixed combinations of lipinavir and ritonavir	1.Primary PK End Points [ Time Frame: 12 weeks ] AUC0-tlast of lopinavir and ritonavir 2.Primary PK End Points [ Time Frame: 13 weeks ] Cmax of lopinavir and ritonavir	Active, not recruiting Estimated Primary Completion Date: May 22, 2020	Low

## Favipiravir (Avigan)

T-705 or favilavir; experimental antiviral drug. Pyrazinecarboxamide derivative viral RNA polymerase inhibitor; Licenced for influenza in Japan

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
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Favipiravir Sponsor: ASST Fatebenefratelli Sacco	EudraCT: 2020-001115-25 NCT04336904 HS216C17	Milano, Italy	A Multi-center, Randomized, Double-blind, Placebo-controlled, Phase III Clinical Study. N=256 patients (of these at least 100 from Italy) with moderate COVID-19 randomised (1:1) to favipiravir or placebo. 16 sites (of which 8 planned in Italy).  Favipiravir arm: Favipiravir administered orally 1800 mg twice a day on Day 1 followed by 600 mg twice a day from Day 2 for a maximum of 14 days	Time from randomization to clinical recovery [Time Frame: 90 days]	Active, not recruiting; Estimated Primary Completion: July 2020	High
Favipiravir	Register: Japan JPRN-jRCTs041190120  WHO International Clinical Trials Registry Platform	Japan Lead center Fujita Health University Hospital	randomized controlled trial, open(masking not used), no treatment control, parallel assignment, treatment purpose Favipiravir for SARS-CoV-infected patients Immediate favipiravir arm: Favipiravir administered orally between Day 1 and Day 10, 1800 mg twice a day on Day 1 followed by 800 mg twice a day from Day 2 Delayed favipiravir arm: Favipiravir administered orally between Day 6 and Day 15, 1800 mg twice a day on Day 6 followed by 800 mg twice a day from Day 7	Proportion of subjects with clearance of SARS-CoV2 in nasopharyngeal swab on Day 6 Proportion of subjects with 90% reduction in SARS-CoV2 copy number in nasopharyngeal swab between Day 1 and Day 6 Change of SARS-CoV2 copy number in nasopharyngeal swab	Recruiting	High
Favipiravir  Sponsor: Bangladesh Medical Research Council (BMRC)	NCT04402203	Bangladesh	Phase 2/3, double-blind, placebo-controlled randomized control study on the safety and efficacy of Favipiravir for COVID-19 patients in selected hospitals of Bangladesh  N=50 randomized 1:1 to Favipiravir + Standard Treatment or Standard Treatment alone.	1. Number of participants negative by RT-PCR for the virus at 4-10 days after initiation of therapy. [ Time Frame: at 4 to 10 days of therapy ]  2. Number of participants with lung condition change assessed with X-ray. [ Time Frame: at Day-4, Day-7 and Day-10 of therapy ]	Recruiting  Estimated Primary Completion Date: July 2020	Medium
Favipiravir	<a href="http://www.chictr.org.cn/showprojen.aspx?proj=49015">http://www.chictr.org.cn/showprojen.aspx?proj=49015</a>  ChiCTR2000029548	Zhejiang, China	N=30, Randomised 1:1:1 to BaloxavirMarboxil, Favipiravir, or Lopinavir-Ritonavir;	Primary outcome: time to negative PCR and time to clinical improvement	Not recruiting;  Estimated study completion: June 03 2020	Medium

Favipiravir + Tocilizumab Sponsor: Peking University First Hospital	NCT04310228 ChiCTR2000030894	Anhui, Beijing, Hubei, China	Open label randomised controlled trial N=150 randomised to Randomized to favipiravir + tocilizumab (n=90) Favipiravir (n=30) Tocilizumab (n=30)	Clinical cure rate [ Time Frame: 3 months ]	Recruiting  Estimated Primary completion: May 2020  Duration: from 2020-03-01 to 2020-05-31	Medium
Favipiravir  Sponsor: Ain Shams University	NCT04349241	Egypt	Phase 3 randomized controlled open-label placebo controlled clinical trial to evaluate the Efficacy and Safety of Favipiravir in Management of COVID-19.  N = 100 patients age > 18 with confirmed COVID-19 with mild to moderate symptoms to receive either: a) Favipiravir in a regimen of 3200 mg (1600 mg 12 hourly) loading dose on day-1 followed by 1200 mg maintenance dose (600 mg 12 hourly daily) on day-2 to day-10 b) Standard of care therapy: Oseltamivir 75 mg 12 hourly for 5-10 days and hydroxychloroquine 400mg 12 hourly day -1 followed by 200mg 12 hourly daily on day- 2 to day-5-10.	Viral clearance [Time Frame: 14 days]	Not yet recruiting  Estimated primary Completion Date: October 1, 2020	Medium
Favipiravir, Hydroxychloroquine  Sponsor: Shahid Beheshti University of Medical Sciences	NCT04359615	Iran	Phase 4, randomized, double-blind, placebo-controlled, clinical trial to evaluate the efficacy and safety of Favipiravir compared to the base therapeutic regimen in moderate to severe COVID-19.  N=40 randomized to Favipiravir+Hydroxychloroquine or Hydroxychloroquine only.	Time to clinical improvement [ Time Frame: From date of randomization until 14 days later. ]	Not yet recruiting  Estimated Primary Completion Date: May 3, 2020	Medium
Favipiravir, Hydroxychloroquine, Azithromycin  Sponsor: Chelsea and Westminster NHS Foundation Trust	NCT04373733 2020-001449-38	United Kingdom (multiple sites)	Phase 3, randomized, open-label controlled trial of early intervention in patients hospitalised with COVID-19.  N=450 randomized 1:1:1 to hydroxychloroquine + azithromycin + zinc + standard medical care or favipiravir + standard medical care or standard medical care alone.	Time to improvement by two points on a seven-category ordinal scale [ Time Frame: Up to 28 days from randomisation	Not yet recruiting  Estimated Study Completion Date: March 31, 2021	Medium

Favipiravir Sponsor: Fujifilm Pharmaceuticals U.S.A., Inc.	NCT04358549	United States, Massachusetts	Open Label, Randomized, Controlled Phase 2 Proof-of-Concept Study. N=50 hospitalised patients with COVID-19 randomised to favipiravir or standard of care	Time to viral clearance [ Time Frame: Day 29 ]	Recruiting Estimated primary completion: August 2020	Low
Favipiravir  Sponsor: World Medicine ILAC SAN. ve TIC. A.S.	NCT04407000	Turkey	Phase 1 Open-label, Randomised, Single Oral Dose, Two-period, Cross-over Trial to Assess to Bioequivalence.  N=18 healthy aged 20 to 40, with 2 negative COVID-19 tests and non- smokers.	Primary PK End Points AUC <sub>0-tlast</sub> [ Time Frame: 12 weeks ]  Primary PK End Points C <sub>max</sub> [ Time Frame: 13 weeks ]	Not yet recruiting  Estimated Primary Completion Date: June 22, 2020	Low
Favipiravir, Kaletra, Hydroxychloroquine  Sponsor: Baqiyatallah Medical Sciences University	NCT04376814	Iran	Randomized, open-label, multicenter study to evaluate the safety and efficacy of Hydroxychloroquine + Favipiravir vs. Hydroxychloroquine + Kaletra on the need for intensive care unit treatment in COVID-19 patients.  N=40 hospitalized covid-19 patients age between 16-100 years randomized to Hydroxychloroquine + Favipiravir or Hydroxychloroquine + Kaletra.	Admission to the ICU [ Time Frame: Up to 28 days ]	Enrolling by invitation  Actual Primary Completion Date: April 5, 2020	Low
Favipiravir and Chloroquine Phosphate  Sponsor: Beijing Chao- yang Hospital, Capital Medical University	ChiCTR2000030987	China, Beijing	A phase 2/3, randomized controlled trial to evaluate the efficacy and safety of favipiravir tablets combined with chloroquine phosphate tablets in the treatment of novel coronavirus pneumonia.  N = 150 randomized 1:1:1 to favipiravir tablets plus chloroquine phosphate tablets, favipiravir tablets alone or placebo.	Improvement or recovery of respiratory symptoms  Viral nucleic acid shedding	Recruiting  Estimated duration: From 2020-03-05 To 2020-06-25	Low
Favipiravir  Sponsor: Tanta University	NCT04351295	Egypt	Open label, placebo controlled trial. N=40 patients with COVID-19 randomised to favipiravir or placebo	Number of patients with viral cure [ Time Frame: 6 months ]	Not yet recruiting; Estimated Primary Completion: December 1, 2030?	Low
Favipiravir vs Baloxavir Marboxil	<a href="http://www.chictr.org.cn/showprojen.aspx?proj=49013">http://www.chictr.org.cn/showprojen.aspx?proj=49013</a>  ChiCTR2000029544	Zhejiang, China	N= 30 with Coronavirus pneumonia Randomised 1:1:1 to antiviral treatment + favipiravir, antiviral treatment + Baloxavir Marboxil, or antiviral treatment	Primary outcome: time to negative PCR Time to clinical improvement	Not recruiting;  Estimated study completion: June 2020	Low

Favipiravir Sponsor: Stanford University	NCT04346628	United States, California	Phase 2, randomized, open label study of oral favipiravir compared to standard supportive care in subjects with mild COVID-19  N=120 randomized to favipiravir + standard of care or standard of care alone	Time until cessation of oral shedding of SARS-CoV-2 virus [ Time Frame: Up to 28 days ] Time in days from randomization to a negative result of nasopharyngeal and/or oropharyngeal and/or salivary swab.	Not yet recruiting  Estimated Primary Completion Date: April 2021	Low
Favipiravir	http://www.chictr.org.cn/showproj.aspx?proj=49988  ChiCTR2000030113	Guangdong, China	N=30 with corona pneumonia with poorly responsive ritonavir Randomised to ritonavir or favipiravir	Blood routine tests, Liver function examination, Renal function examination, Blood gas analysis, Chest CT examination	Recruiting;  Estimated study completion: May 31, 2020	Low
Fapilavir Approved by China for covid-19 treatment by February 17, 2020.	ChiCTR2000029996 http://www.chictr.org.cn/showproj.aspx?proj=49510	Beijing, China	Randomised, open label, controlled trial. N=60 patients with covid-19 of ordinary type randomised to low, middle or high dose fapilavir for 10 days	Time to Clinical Recovery defined as normal body temperature and cough relief	Recruiting  Estimated study completion: April 20, 2020	Low
Farpiravir	ChiCTR2000030254 http://www.chictr.org.cn/showproj.aspx?proj=50137	Hubei, China	Randomised, open label, controlled trial. N=240 with covid-19 randomised to farpiravir or abidole	Pulse oxygen saturation, Respiratory support, nucleic acid test of novel coronavirus	Recruiting;  From 2020-02-20 To 2020-03-20	Low
Favipiravir Sponsor: Peking University First Hospital	NCT04333589	Anhui, Hubei, Zhejiang China	Open label randomised controlled trial N=210 patients who have cleared the virus randomised to Favipiravir, or Standard of care	Viral nucleic acid test negative conversion rate [ Time Frame: 5 months ]	Not yet recruiting; Estimated Primary Completion: June 1, 2020	Low

### Darunavir + cobicistat or ritonavir

Antiretroviral, protease inhibitor. Used with low doses of cobicistat to increase bioavailability and half-life. Approved for HIV

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Darunavir + cobicistat + chloroquine  Sponsor: Fundacio Lluita Contra la SIDA	NCT04304053	Barcelona, Spain	Phase 3, Open label cluster randomised trial N= 3040 participants Randomised to antiviral and prophylaxis: darunavir 800 mg / cobicistat 150 mg and chloroquine  Contacts will be offered a prophylactic regimen of chloroquine	Incidence of secondary cases among contacts of a case and contacts of contacts	Recruiting; Estimated primary completion: June 15, 2020	High

			Active comparator: no intervention			
Darunavir + Cobicistat	ChiCTR2000029541 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48992">http://www.chictr.org.cn/showproj.aspx?proj=48992</a>	Hubei, China	Randomised, open label study  N=100 patients with covid-19 randomised to darunavir/cobicistat, lopinavir/ritonavir combined, or conventional treatment	Time to conversion of 2019-nCoV RNA result from RI sample	Dec 01, 2020	Low
Darunavir + Cobicistat  Sponsor: Shanghai Public Health Clinical Center	NCT04252274	China, Shanghai	Phase 3, randomised, open label  N=30 patients with covid-19 randomised to Darunavir and Cobicistat or Conventional treatment	The virological clearance rate of throat swabs, sputum, or lower respiratory tract secretions at day 7 [ Time Frame: 7 days after randomization ]	Recruiting; Estimated primary completion: August 31, 2020	Low
Danorevir+ritonavir  Sponsor: Huoshenshan Hospital, China, Hubei	ChiCTR2000031734	China, Hubei	Open-label, controlled trial to evaluate efficacy and safety of Danoprevir (Ganovo) combined with Ritonavir in the treatment of light common type COVID-19.  N=40	Rate of composite adverse outcomes: SpO2, PaO2/FiO2, respiratory rate	Recruiting  From 2020-03-18 To 2020-05-29	Low

### Umifenovir (Arbidol)

An antiviral drug for influenza used in Russia and China

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Umifenovir  Sponsor: Union Hospital, Tongji Medical College, Huazhong University of Science and Technology	ChiCTR2000029592 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49069">http://www.chictr.org.cn/showproj.aspx?proj=49069</a>	Hubei China	Post exposure prophylaxis Observational study  High-risk population including medical staff on duty during the outbreak of 2019-nCoV. N=1000 2 cohorts treated with Arbidol or no Arbidol	2019-nCoV RNA; 2019-nCoV antibody; Chest CT;	Not yet recruiting;  From 2020-02-05 To 2020-08-31	Medium
Umifenovir + Interferon Beta-1a + lopinavir/ritonavir + hydroxychloroquine  Sponsor: Shahid Beheshti University of Medical Sciences	NCT04350684	Tehran, Islamic Republic of Iran	A Randomized, Double-Blind, Placebo-Controlled, Clinical Trial  N=40 patients with moderate to severe COVID-19 randomised to umifenovir + interferon Beta-1a + lopinavir/ritonavir + hydroxychloroquine, or interferon Beta-1a + lopinavir/ritonavir + hydroxychloroquine	Time to clinical improvement on a 7-point scale [ Time Frame: From date of randomization until 14 days later. ]	Enrolling by invitation; Estimated Primary Completion: April 22, 2020	Medium

Umifenovir	<a href="http://apps.who.int/trialsearch/Trial2.aspx?TriallD=NCT04246242">http://apps.who.int/trialsearch/Trial2.aspx?TriallD=NCT04246242</a>	Xiangya Hospital of Central South University	Phase 4 A Randomised Multicenter Controlled Clinical Trial N=500 with covid-19 infection randomised to 200 mg, 400 mg or conventional treatment	Mortality (time frame 28 days)	Not yet recruiting	Low
Umifenovir + interferon (PegIFN- $\alpha$ -2b)	NCT04254874	Tongji Hospital, China	Phase 4 Open, Prospective, Randomised Controlled Cohort Study  N=100 randomised to arbidol Hydrochloride (Umifenovir), or Arbidol Hydrochloride Combined With Interferon Atomization	Rate of disease remission (Time Frame: two weeks)  Time for lung recovery (Time Frame: two weeks)	Not yet recruiting; Estimated study completion date: July 1, 2020	Low
Umifenovir	ChiCTR2000029621  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49165">http://www.chictr.org.cn/showproj.aspx?proj=49165</a>	Shanghai, China	Multicenter, randomised, open-label, controlled trial N= 380 patients with mild or moderate covid-19	Virus negative conversion rate in the first week	Recruiting;  From2020-01-01 To 2020-12-31	Low
Umifenovir, Novaferon, lopinavir/ritonavir	ChiCTR2000029573  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49065">http://www.chictr.org.cn/showproj.aspx?proj=49065</a>	Zhejiang, China	N=600 randomised 1:1:1:1:1:1: to arbidol, Novaferon + arbidol, Lopinavir/ritonavir, Arbidol, Novaferon, lopinavir/ritonavir, or Novaferon + arbidol	2019-nCoV nucleic acid test confirmed negative;	Not yet recruiting From2020-02-05 To 2020-06-30	Low
Umifenovir	NCT04260594	Jieming QU, Ruijin Hospital	Phase 4, Randomised, Open, Multicenter Study  N=380 with covid-19 randomised to arbidol or basic treatment	Virus negative conversion rate in the first week	Not recruiting yet;  Estimated primary completion date:July 1, 2020	Low

## Other antiviral drugs

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
BLD-2660 Calpain 1, 2, and 9 inhibitor.	NCT04334460	Not stated	Phase 2, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Safety and Antiviral Activity of BLD-2660 in Hospitalized Subjects With Recently Diagnosed COVID-19 Compared to Standard of Care Treatment N=120 randomised to BLD-2660 or placebo	Antiviral Activity [ Time Frame: Course of study; 21 days ] Improvement of oxygenation [ Time Frame: 10 days ]	Not yet recruiting; Estimated Primary Completion: August 2020	High

Emtricitabine/tenofovir disoproxil vs Hydroxychloroquine	NCT04334928  (EPICOS)	Madrid, Spain	Double blinded placebo-controlled trial. N=4000 healthcare personnel randomised to Emtricitabine/tenofovir disoproxil + hydroxychloroquine, Emtricitabine/tenofovir disoproxil + placebo, Hydroxychloroquine + placebo, or Placebo + placebo.	Number of confirmed symptomatic infections of SARS-CoV-2 (COVID-19) [ Time Frame: 12 weeks ]	Recruiting; Estimated Primary Completion: June 30, 2020	High
Emtricitabine/Tenofovir Alafenamide (FTC/TAF)  Sponsor: Hospital Italiano de Buenos Aires	NCT04405271  CoviPrep Study	Argentina	Phase 3, randomized, double-blind, placebo-controlled trial of FTC/TAF for pre-exposure prophylaxis of COVID-19 in healthcare workers with high transmission risk in addition to currently recommended control measures.  N=1378 randomized 1:1 to FTC/TAF or placebo.	COVID-19 incident cases [ Time Frame: During treatment (12 weeks) ]	Not yet recruiting  Estimated Primary Completion Date: November 15, 2020	High
Triazavirin Developed in Russia has been investigated for the treatment of influenza and other virus infections. Sponsor: Health commission of Heilongjiang province	ChiCTR2000030001  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49723">http://www.chictr.org.cn/showproj.aspx?proj=49723</a>	Heilongjiang, China	A multicenter, randomised, double blinded, placebo-controlled trial N=240 randomised to Triazavirin or conventional treatment	Time to Clinical recovery	Recruiting; From 2020-02-15 To 2020-05-28	Medium
Galidesivir  Sponsor: BioCryst Pharmaceuticals	NCT03891420	Brazil	A Phase 1b Double-blind, Placebo-controlled, Dose-ranging Study to Evaluate the Safety, Pharmacokinetics, and Anti-viral Effects of Galidesivir. N=66 with yellow fever or COVID-19 randomised to galidesivir or placebo	Treatment emergent adverse events and serious adverse events  Change in laboratory parameters  Exposure of galidesivir as measured by plasma concentrations	Recruiting; Estimated Primary Completion: May 31, 2021	Medium
Oseltamivir (Tamiflu) Oseltamivir vs ASC09F + Oseltamivir vs Ritonavir + Oseltamivir	NCT04261270	Tongji Hospital, China	60 patients with covid-19 randomised to ASC09F + Oseltamivir, Ritonavir + Oseltamivir, or Oseltamivir	Rate of comprehensive adverse outcome (Time Frame: 14 days) defined as low Oxygen saturation and high respiration rate	Not yet recruiting;  Estimated primary completion: May 1, 2020	Low
Oseltamivir, lopinavir, ritonavir, favipiravir, darunavir, chloroquine	NCT04303299	Bangkok, Thailand	A 6 Week Prospective, Open Label, Randomized, in Multicenter Study N=80 stratified by severity: Mild COVID19: Oseltamivir Plus Chloroquine,	SARS-CoV-2 eradication time	Not yet recruiting;  Estimated primary completion: Oct 31, 2020	Low

			Lopinavir/ Ritonavir Plus Oseltamivir, Lopinavir/ Ritonavir Plus Favipiravir, or Conventional quarantine  Moderate to Critically Ill COVID19: Lopinavir/ Ritonavir Plus Oseltamivir, Favipiravir Plus Lopinavir / Ritonavir, Darunavir/ Ritonavir Plus Oseltamivir Plus Chloroquine, Favipiravir Plus Darunavir, Ritonavir Plus Chloroquine			
Azvadine, nucleoside reverse transcriptase inhibitor Currently investigated in phase 3 studies for the treatment of HIV	ChiCTR2000029853  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49532">http://www.chictr.org.cn/showproj.aspx?proj=49532</a>	He'nan, China	Randomised, open label N=20 randomised to Azvadine or conventional treatment	Several of primary clinical endpoints.	Recruiting,  From2020-02-16 To 2020-04-16	Low
Azvadine	ChiCTR2000030424  <a href="http://www.chictr.org.cn/showproj.aspx?proj=50174">http://www.chictr.org.cn/showproj.aspx?proj=50174</a>	He'nan, China	Single arm study N=30 treated with azvadine	conversion rate	Not yet recruiting  From2020-03-02 To 2022-05-02	Low
Azvadine	ChiCTR2000030041  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49891">http://www.chictr.org.cn/showproj.aspx?proj=49891</a>		Single arm study of 20 patients with common or severe type covid-19 treated with azvadine on top of conventional treatment	The novel coronavirus nucleic acid negative rate	Not yet recruiting;  From2020-02-21 To 2020-06-30	Low
Azvadine	ChiCTR2000030487  <a href="http://www.chictr.org.cn/showproj.aspx?proj=50507">http://www.chictr.org.cn/showproj.aspx?proj=50507</a>	He'nan, China	Single arm, N=10 treated with azvadine	Conversion time	Recruiting  From2020-03-04 To 2020-05-04	Low
Clevudine and hydroxychloroquine  Clevudine is an antiviral drug for the treatment of hepatitis B (HBV) approved in South Korea and the Philippines (Levovir and Revovir). Sponsor: Bukwang Pharmaceutical	NCT04347915	Korea?	A randomized, open-label, phase 2 study to assess the safety and efficacy of Clevudine 120 mg once a day for 14 days and of hydroxychloroquine 200mg twice a day.  N = 60 patients with moderate COVID- 19 randomized to either Clevudine or hydroxychloroquine treatment.	The rate of subjects tested as negative SARS-Coronavirus-2 (SARS-CoV-2) [ Time Frame: within 15days ]	Not yet recruiting  Estimated primary Completion Date: September 30, 2020	Low

Novaferon New antiviral drug developed in China	ChiCTR2000029496  <a href="http://www.chictr.org.cn/showproj.aspx?proj=48809">http://www.chictr.org.cn/showproj.aspx?proj=48809</a>	Huhan, China	Randomised controlled trial. N=90 with covid-19 randomised to Novaferon, Kaletra, or Novaferon+ Kaletra	Time to negative testing	Recruiting;  From2020-01-10To 2021-01-10	Low
DAS181 for compassionate use. Currently investigated for the treatment of parainfluenzavirus infection	NCT04324489	China, Hubei	Single group assignment, N=4 with4severe COVID-19	Improved clinical status	Completed;  Update: Completed as of April 16, 2020	Low
Danoprevir + ritonavir	ChiCTR2000030259 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49918">http://www.chictr.org.cn/showproj.aspx?proj=49918</a>	Shanghai	Randomised, open label controlled trial. N=60 patients with mild and moderate covid-19 randomised to Danorevir or Symptomatic treatment	Rate of composite aduers outcomes: SpO2, PaO2/FiO2, respiratory rate	Recruiting; From2020-02-22 To 2020-04-30	Low
Danoprevir + Ritonavir  Sponsor: Huoshenshan Hospital	NCT04345276	China, Hubei	Phase 4, open-label, single-armed trial.  N=40 hospitalized patients infected with SARS-CoV-2.  Danoprevir (100mg, one tablet each time, twice per day, up to 10 days) + Ritonavir (100mg, one tablet each time, twice per day, up to 10 days).	Rate of composite adverse outcomes [ Time Frame: Within 10 days after administration ] Defined as SPO2≤ 93% without oxygen supplementation, PaO2/FiO2 ≤ 300mmHg or a respiratory rate ≥30 breaths per min without supplemental oxygen min without supplemental oxygen	Recruiting  Estimated Primary Completion Date: April 30, 2020	Low
EIDD-2801  EIDD-2801 is a direct acting anti-viral nucleoside analogue  Sponsor: Ridgeback Biotherapeutics, LP	NCT04392219  2020-001407-17  EIDD-2801-1001	United States (Florida, Texas, Wisconsin)  United Kingdom	Phase 1, randomized, double-blind, placebo-controlled, first-in-human study to evaluate the safety, tolerability and pharmacokinetics of EIDD-2801.  N=122 (age 18-60 years) healthy volunteers.  Part 1: Subjects will be randomized to receive a single oral dose of EIDD-2801 or Placebo.  Part 2: Two single oral doses of EIDD-2801 will be administered to subjects, in an open-label manner.  Part 3: Subjects will be randomized to receive twice daily dosing either EIDD-2801 or Placebo.	1. Safety and Tolerability of Single Ascending Dose (SAD) of EIDD-2801 (Part 1): Adverse Events [ Time Frame: From screening through study completion, up to 15 days ]  2. Safety and Tolerability of Multiple Ascending Dose (MAD) of EIDD-2801 (Part 3): Adverse Events [ Time Frame: From screening through study completion, up to 20 days ]  3. Pharmacokinetics (PK) of EIDD-2801 when given as Single Doses (Part 2): Maximum observed concentration Cmax [ Time Frame: Day 1 through Day 18 ]	Recruiting  Estimated Primary Completion Date: June 16, 2020	Low

EIDD-2801 Sponsor: Ridgeback Biotherapeutics, LP	NCT04405570	United States	Phase IIa Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Safety, Tolerability and Efficacy of EIDD-2801 to Eliminate Infectious Virus Detection in Persons With COVID-19.  N=44 adults randomized to 200 mg oral capsule EIDD-2801 or Placebo.	Virologic Efficacy [ Time Frame: 28 days ]  Number of Participants with any Adverse Events (AEs) as Assessed by Kaplan Meier Approach [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: June 24, 2020	Medium
EIDD-2801 Sponsor: Ridgeback Biotherapeutics, LP	NCT04405739	United States	Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of the Efficacy and Safety of EIDD-2801 on SARS-CoV-2 Virus Shedding in Newly Hospitalized Adults With PCR-Confirmed COVID-19  N=80 adults with confirmed COVID-19 and former good health. Randomized to 200 mg EIDD-2801, 300 mg EIDD-2801 or placebo.	Number of Participants that achieve Virologic Clearance after oral administration of EIDD-2801 [ Time Frame: 28 days ] Number of Participants With any Serious Adverse Events(SAEs) as assessed by CTCAEv4 [ Time Frame: 28 days ] Number of Participants With any Adverse Events(AEs) as assessed by CTCAEv4 [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: June 24, 2020	Medium
Virazole (ribavirin) Sponsor: Bausch Health Americas, Inc.	NCT04356677	Not stated	Phase 1, open label, non-randomized, two-arm interventional clinical trial to evaluate the safety and efficacy of Virazole (50 mg/mL or 100 mg/mL)  N = 50 hospitalized adult patients who have tested positive for COVID-19 and have significant respiratory distress	Change in the clinical status severity (CSS) rating from the first dose date up to the completion of treatment [ Time Frame: 7 days ]	Not yet recruiting  Estimated Study Completion Date: April 2021	Low
LL-37 antiviral peptide (CAS001)	ChiCTR2000030939	Beijing, Hubei	Single arm study. Preliminary evaluation of the safety and efficacy of oral LL-37 antiviral peptide (CAS001) in the treatment of novel coronavirus pneumonia (COVID-19). N=10	Several primary outcome measures: eg. nuclear acid test of faeces, nuclear acid test of the upper respiratory tract, IgM etc	Recruiting; Estimated duration: 2020-03-16To 2020-10-01	Low

## Antineoplastic and immunomodulating agents

### Convalescent Plasma

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Anti-SARS-CoV-2 virus inactivated plasma  Sponsor: Wuhan Jinyintan Hospital (Wuhan Infectious Diseases Hospital)	ChiCTR2000030010; <a href="http://www.chictr.org.cn/showproj.aspx?proj=49777">http://www.chictr.org.cn/showproj.aspx?proj=49777</a>	Hubei	Randomised double blinded parallel-controlled trial Patients with severe covid-19. N=100 randomised to Anti-SARS-CoV-2 virus inactivated plasma, or conventional treatment	Improvement of clinical symptoms (Clinical improvement is defined as a reduction of 2 points on the 6-point scale of the patient's admission status or discharge from the hospital)	Not yet recruiting;  From 2020-02-19 To 2020-05-31	High

Human Coronavirus Immune Plasma  Sponsor: Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins	NCT04323800	Not stated yet	Prevention study A Randomized, Blinded Phase 2 Study, double-blinded randomised trial. N=150 participants defined as Close contact exposure to person with COVID-19 within 96 hours of enrolment. Participants will be randomised to Anti-SARS-coV-2 plasma or SARS-CoV-2 non-immune Plasma	Cumulative incidence of composite outcome of disease severity [ Time Frame: Day 28]: Death; Requiring mechanical ventilation and/or in ICU; non-ICU hospitalization, requiring supplemental oxygen; non-ICU hospitalization, not requiring supplemental oxygen; Not hospitalized, but with clinical and laboratory evidence of COVID-19 infection; Not hospitalized, no clinical evidence of COVID-19 infection, but with positive PCR for SARS-CoV-2	Not yet recruiting; Estimated Primary Completion: December 31, 2022	High
Convalescent Plasma	NCT04355767	United States, California	Randomised, double blind, placebo-controlled trial. N=206 patients with COVID-19, not hospitalised, randomised to Convalescent Plasma or placebo	Time to disease progression [ Time Frame: 15 days ]	Not yet recruiting; Estimated Primary Completion Date: December 2022	High
Convalescent plasma  Sponsor: Vanderbilt University Medical Center	NCT04362176	United States, Tennessee	Phase 3, randomized, blinded, placebo-controlled trial to test the safety and efficacy of convalescent donor plasma to treat COVID-19 in hospitalized adults.  N=500 hospitalized covid-19 patients ≥18 with acute respiratory infection randomized 1:1 to convalescent plasma or placebo (lactated Ringer's solution with multivitamins).	COVID Ordinal Outcomes Scale:Day 15 [ Time Frame: Study Day	Recruiting  Estimated Primary Completion Date: April 2021	High
Convalescent Plasma  Sponsor: Albert Einstein College of Medicine	NCT04364737	United States, New York	A phase 2, randomized, double-blinded, placebo-controlled trial to assess the efficacy and safety of anti-SARS-CoV-2 convalescent plasma  N = 300 hospitalized patients with acute respiratory symptoms requiring oxygen supplementation.	Percentage of subjects reporting each severity rating on WHO ordinal scale for clinical improvement [ Time Frame: 14 days post randomization ]	Recruiting  Estimated Study Completion Date: April 30, 2023	High
Convalescent plasma  Sponsor: Johns Hopkins University	NCT04373460	United States?	A phase 2, randomized, double-blind, controlled trial to evaluate the efficacy of treatment with human coronavirus immune plasma (HCIP) in reducing hospitalization and death prior to hospitalization among outpatient adults	1. Cumulative incidence of hospitalization or death prior to hospitalization [ Time Frame: Up to day 28 ] 2. Cumulative incidence of treatment-related serious adverse events [ Time Frame: Up to day 28 ]	Not yet recruiting  Estimated Study Completion Date: January 31, 2023	High

			N = 1344 eligible subjects stratified 50:50 in the <65 vs > 65 age range randomized in a 1:1 ratio to receive either HCIP or control plasma.	3.Cumulative incidence of treatment-related grade 3 or higher adverse events [ Time Frame: Up to day 90 ]		
Convalescent Plasma Sponsor: Centenario Hospital Miguel Hidalgo	NCT04381858	Mexico	Phase 3, Randomized, Controlled clinical trial to assess the safety and efficacy of the administration of Convalescent plasma vs human immunoglobulin in critically ill patients with COVID-19 infection.  N = 500 hospitalized patients age 16 to 90 years with PCR confirmed SARS-CoV-2 to 400 mL infusion of plasma from COVID-19 convalescent patient.	1. Mean hospitalization time [Time Frame: Through study completion, an average of 3 months] 2. Mean Oxygenation index evolution [Time Frame: Through study completion, an average of 3 months] 3. Rate of severe ARDS [Time Frame: Through study completion, an average of 3 months] 4. Rate and time to dead [Time Frame: Through study completion, an average of 3 months] 5. Mean time with invasive mechanical ventilation [ Time Frame: Through study completion, an average of 3 months ]	Recruiting  Estimated Primary Completion Date: August 30, 2020	High
Convalescent Plasma Sponsor: Hospital Italiano de Buenos Aires	NCT04383535	Not stated	A randomized, double-blind, placebo-controlled clinical trial of convalescent SARS COVID-19 plasma versus placebo to evaluate the effect between arms.  N = 333 COVID-19 patients randomized 2:1 (222 plasma 111 placebo)	Clinical status during follow-up at 30th day [ Time Frame: 30th Day since study preparation infusion (Placebo or Convalescent SARS COVID-19 plasma) ]	Not yet recruiting  Estimated Primary Completion Date: July 15, 2020	High
Convalescent Plasma Sponsor: Columbia University	NCT04390503	United States, New York	A phase 2, double-blinded, placebo-controlled, randomized control trial to assess the efficacy and safety of anti-SARS-CoV-2 convalescent plasma compared to control.  N = 200 subject. Two groups, RT PCR-positive and asymptomatic or mildly symptomatic at baseline (group B) and PCR-negative at baseline (group C). Both groups will be randomized 1:1 to receive either convalescent plasma qualitatively positive for SARS-CoV-2 antibody (anti-SARS-CoV-2 plasma) or control (albumin 5%).	Rate of Severe Disease [ Time Frame: Up to 28 days ]	Recruiting  Estimated Primary Completion Date: April 2021	High
Convalescent Plasma Sponsor:	NCT04405310 CPC-SARS	Mexico	Phase 2, randomized, double-blinded study to evaluate convalescent plasma of covid-19 to treat SARS-COV-2.	1. Death [ Time Frame: 15 days ]	Recruiting  Estimated Primary Completion Date: June 20, 2020	High

Grupo Mexicano para el Estudio de la Medicina Intensiva			N=80 randomized to convalescent plasma or placebo.			
Convalescent Plasma  Sponsor: University of Sao Paulo General Hospital	NCT04415086  COOPCOVID-19	Brazil	Phase 2, multicentre, randomized, open-label controlled study to evaluate the efficacy and safety of convalescent plasma in treatment of severe cases of COVID-19.  N=120 randomized 1:1:1 to A - standard (control) or B - standard and convalescent plasma in a volume of 200ml (150-300ml) or C - standard and convalescent plasma in a volume of 400ml (300-600ml).	Time elapsed until clinical improvement or hospital discharge [ Time Frame: Follow up until 28 days after transfusion ]	Recruiting  Estimated Primary Completion Date: April 20, 2022	Medium
Convalescent plasma  Sponsor: Indian Council Of Medical Research	CTRI/2020/04/024775  PLACID	India (32 sites)	Phase 2, Open Label, Randomized Controlled Trial to Assess the Safety and Efficacy of Convalescent Plasma to Limit COVID-19 Associated Complications in Moderate Disease.  N = 452 (32 sites), age 18-90, with confirmed Covid-19 and any of the two: any of the two: a. PaO2/ FiO2: 200-300 b. Respiratory Rate > 24/min and SaO2 < 93% on room air randomized to receive convalescent plasma (2 doses of 200mL each) or standard of care	The primary outcome is a composite measure of the avoidance of - 1. Progression to severe ARDS (P/F ratio 100) or 2. All-cause Mortality at 28 days [Time Frame: 28 days]	Not yet recruiting  Estimated Duration of Trial: 6 month	Medium
Convalescent plasma  Sponsor: Azienda Ospedaliero, Universitaria Pisana	NCT04393727	Italy	A phase 2, open-label, randomized clinical trial to evaluate safety and efficacy of early use of convalescent plasma.  N = 126 patients with SARS-CoV2 pneumonia randomized to receive or not receive convalescent plasma.	Need of invasive mechanical ventilation [ Time Frame: 30 days ]	Recruiting  Estimated Primary Completion Date: September 30, 2020	Medium
Convalescent Plasma  Sponsor: University of Pennsylvania	NCT04397757	United States, Pennsylvania	A phase 1, open-label, randomized controlled, safety and exploratory efficacy study of convalescent plasma.  N = 80 severely ill, hospitalized participants with covid-19 pneumonia caused by SARS-CoV-2 randomized 1:1 to receive either convalescent plasma in	1.Participants with serious adverse events. [ Time Frame: Up to 29 days from treatment ] 2.Comparison of clinical severity score between patients on the experimental versus control arms; [ Time Frame: Up to 29 days from treatment ]	Recruiting  Estimated Primary Completion Date: September 13, 2020	Medium

			addition to standard care or standard care alone.			
Convalescent plasma and anti-COVID-19 human immunoglobulin  Sponsor: Lifefactors Zona Franca, SAS	NCT04395170	N/A	Phase 2/3, randomized, open-label, multicenter, three-arm clinical trial to study the efficacy and safety of passive immunotherapy (convalescent plasma and anti-COVID-19 human immunoglobulin) compared to the standard treatment in Colombia.  N = 75 hospitalized patients age > 18 with confirmed SARS-CoV-2 infection to 00 - 250 mL convalescent plasma administered on days 1 and 3 of the intervention or Anti-COVID-19 human immunoglobulin intravenously at a dose of immunoglobulin 10% IgG solution for: a) Patient of 50 Kg or more, a dose of 50 mL, administered on days 1 and 3 of treatment. b) Patient under 50 Kg, the dose will be 1 mL / Kg, administered on days 1 and 3 of treatment.	Admission to ICU and/or mechanical ventilation [Time Frame: One year]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Medium
Convalescent Plasma  Sponsor: Hospital San Vicente Fundación	NCT04391101	Not stated	Phase 3, open label, parallel, randomized clinical trial to determine the efficacy of convalescent plasma for the treatment of severe COVID-19 infection in terms of decreased in-hospital mortality.  N=231 adult subjects with SARS-CoV-2 infection confirmed by PCR in any sample and hospitalized in the ICU due to shock or respiratory failure randomized 2:1 to convalescent plasma or standard of care.	Intrahospital mortality from any cause [ Time Frame: Up to 28 days ]	Not yet recruiting  Estimated Primary Completion Date: June 2021	Medium
Convalescent Plasma Sponsor: West Virginia University	NCT04376034	United States, West Virginia	Phase 3, non-randomized, open-label study.  N=1000 (plasma donor) Prior diagnosis of COVID-19 documented by a laboratory test,	1. Plasma Donor [ Time Frame: Measured in days for 365 days ] Time it takes to identify eligible donors whom are willing to donate  2. Plasma Donor [ Time Frame: Measured in days for 365 days ]	Recruiting  Estimated Primary Completion Date: March 30, 2021	Medium

			<p>resolution of symptoms at least 28 days prior to donation.</p> <p>N=240 (plasma recipient) Any age above 30 days of life, laboratory confirmed COVID-19, severe or immediately life-threatening COVID-19</p> <p>Mild Severity: standard of care - will not receive plasma unless there is progression of illness into the moderate/rapid progression or greater category</p> <p>Moderate Severity: Convalescent Plasma 1 Unit</p> <p>Severe or Critical Severity: Convalescent Plasma 2 Units</p>	<p>Time it takes the plasma collection center to contact willing donors whom are allowed to donate plasma</p> <p>3. Plasma Recipient [ Time Frame: Measured every 24 hours up to 30 days ] Time from consent to infusion</p> <p>4. Plasma Recipient [ Time Frame: Measured in days with 30 day from discharge follow-up ] Survival</p>		
<p>Convalescent plasma</p> <p>Sponsor: Noah Merin</p>	NCT04353206	<p>United States, California, Maryland, Pennsylvania</p>	<p>Phase 1, open-label trial on the feasibility of using convalescent plasma in ICU patients</p> <p>N = 90, Mechanically Ventilated Intubated Patients With Respiratory Failure Due to COVID-19, receiving multiple doses</p>	<p>1. Proportion of subjects who consent to the study and receive at least one dose of convalescent plasma.</p> <p>2. Overall survival of patients in the ICU receiving at least once dose of convalescent plasma for Covid-19-induced respiratory failure. [Time Frame: 60 days]</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion: May 2021</p>	<p>Medium</p>
<p>Convalescent Plasma</p> <p>Sponsor: Andalusian Network for Design and Translation of Advanced Therapies</p>	NCT04366245	<p>Spain (multicentre)</p>	<p>Phase 1/2, randomized, open-label trial to evaluate the efficacy of treatment with hyperimmune plasma obtained from convalescent antibodies of COVID-19 infection.</p> <p>N=72 randomized to plasma of convalescent covid-19 or Hidroxicloroquina + Azitromicina o Lopinavir/ritonavir + Interferon <math>\beta</math>-1b + Hidroxicloroquina</p>	<p>1. Safety: Incidence of Adverse Events and Serious Adverse Events grade 3 and 4, related to the product under investigation or the administration procedure, graduated according to the common toxicity criteria scale (CTCAE). [ Time Frame: 30 days after enrollment ]</p> <p>2. Efficacy: Death from any cause [ Time Frame: Day +21 after randomization ]</p> <p>3. Efficacy: Need for mechanical ventilation [ Time Frame: Day +21 after randomization ]</p> <p>4. Efficacy: Any of the following analytical data after 72h of</p>	<p>Recruiting</p> <p>Estimated Study Completion Date: December 2021</p>	<p>Medium</p>

				randomization. [ Time Frame: Day +21 after randomization ]		
Convalescent plasma Sponsor: Hospital Universitario Dr. Jose E. Gonzalez	NCT04358783	Mexico	Phase 2, double-blinded, controlled, randomized trial on the efficacy of convalescent plasma compared to best available treatment  N = 30, hospitalized with Covid-19 requiring supplemental oxygen	Early all-cause mortality [Time Frame: 14 days]	Not yet recruiting  Estimated Study Completion Date: May 30, 2021	Medium
Convalescent Plasma Sponsor: Brigham and Women's Hospital	NCT04361253  (ESCAPE)	Not stated	A phase 3, randomized, double-blinded, placebo-controlled trial of high-titer COVID-19 Convalescent Plasma (HT-CCP) as a possible treatment for people who have COVID-19  N = 220 hospitalized patients with COVID-19 of moderate severity	Modified WHO Ordinal Scale (MOS) score [ Time Frame: Day 14 ]	Not yet recruiting  Estimated Study Completion Date: December 2021	Medium
Convalescent Plasma Sponsor: Max R. O'Donnell	NCT04359810	United States, New York	A phase 2, double-blinded, randomized clinical trial to evaluate the efficacy and safety of human anti-SARS-CoV-2 Convalescent Plasma  N = 105 severely ill adults with COVID-19 randomized in a 2:1 ratio to receive either convalescent plasma qualitatively positive for SARS-CoV-2 antibody (anti-SARS-CoV-2 plasma) or non-convalescent fresh frozen plasma (control plasma).	Time to Improvement [ Time Frame: Up to 28 days ]	Not yet recruiting  Estimated Study Completion Date: April 2021	Medium
Convalescent plasma Sponsor: Hilton Pharma	NCT04352751	Pakistan	Single arm, open label clinical trial for experimental Use of Convalescent Plasma for Passive Immunization in Current COVID-19 Pandemic.  N = 2000 with severe or critical COVID-19  Children: 15 ml/kg over 4-6 hours once in patients under 35 kg body weight. Adults: maximum 450 - 500 ml over 4-6 hours once in all adults patients. 900 - 1000 mL each time.	Change in COVID-19 severity status [Time Frame: Up to 09 days]	Not yet recruiting  Estimated Primary Completion Date: April 2021	Medium

Convalescent plasma  Sponsor: Hamilton Health Sciences Corporation	NCT04348656  CONCOR-1	Canada (multiple sites)	Phase 3, Randomized Open-Label Trial of convalescent plasma for hospitalized adults with acute COVID-19 respiratory illness.  N=1200 subjects ≥16 years old, admitted to hospital with confirmed COVID-19 respiratory illness. Randomized to convalescent plasma or standard of care.	Intubation or death in hospital [ Time Frame: Day 30 ]	Not yet recruiting  Estimated Primary Completion Date: October 31, 2020	Medium
Convalescent plasma  Sponsor: Stony Brook University	NCT04344535	United States, New York	Phase 1/2, randomized clinical trial comparing the Efficacy and Safety of High-Titer Anti-SARS-CoV-2 Plasma vs. Standard Plasma in Hospitalized Patients With COVID- 19 Infection  N = 500 age > 18 hospitalized with PCR confirmed COVID-19 infection randomized to 450-550 mL of plasma containing anti-SARS-CoV-2 antibody titer or 450-550 mL of plasma with low titer to anti-SARS-CoV-2 antibodies	Number of days a patient is receiving mechanical invasive ventilation through 28 days post randomization. Patients who die during this time period are assigned 0 ventilator free days.	Enrolling by invitation  Estimated study completion August 31, 2021	Medium
Convalescent plasma  Sponsor: Erasmus Medical Center	NCT04342182  ConCoVid-19	Netherlands (2 sites)	Phase 2/3 single-blinded, randomized trial.  N=426 patients age >18 with PCR confirmed COVID disease randomized between the infusion of 300 mL of convalescent plasma versus the standard of care	Overall mortality until discharge from the hospital or a maximum of 60 days after admission whichever comes first [ Time Frame: until hospital discharge or a maximum of 60 days whichever comes first ] the mortality in the 300ml convP group will be compared with the control arm	Recruiting  Estimated Primary Completion Date: July 1, 2020	Medium
Convalescent plasma	NCT04345523	Spain	Multi-center, Randomized Clinical Trial of Convalescent Plasma Therapy Versus Standard of Care for the Treatment of COVID-19 in Hospitalized Patients N=278	Category Changes in Ordinal Scale [ Time Frame: 15 days ]	Recruiting; Estimated Primary Completion; July 2020	Medium
Convalescent plasma  Sponsor: China-Japan friendship hospital	ChiCTR2000030702	China, Hubei	A prospective, multicenter, randomized, open, parallel controlled trial.  N = 50 patients with common COVID-19, and randomly allocated to the experimental group or control group at a ratio of 1: 1.	Time to clinical recovery after randomization	Recruiting  From 2020-02-15 To 2020-08-15	Medium

anti-SARS-CoV-2 virus inactivated plasma	ChiCTR2000030929	Wuhan, China	A randomized, double-blind, parallel-controlled trial to evaluate the efficacy and safety of anti-SARS-CoV-2 virus inactivated plasma in the treatment of severe novel coronavirus pneumonia (COVID-19). N=60	Improvement of clinical symptoms (Clinical improvement is defined as a reduction of 2 points on the 6-point scale of the patient's admission status or discharge from the hospital)	Not yet recruiting; Duration: From 2020-03-17 To 2020-06-16	Medium
Convalescent Plasma  Sponsor: Direction Centrale du Service de Santé des Armées	NCT04372979  2020-A01166-33  PLASCOSSA	France (multiple sites)	Phase 3, randomized, controlled, triple-blinded, parallel clinical trial to tests the efficacy of convalescent plasma transfusion therapy in the early care of COVID-19 hospitalized patients outside intensive care units.  N=80 hospitalized covid-19 patients with comorbidities or clinical risk factors randomized to convalescent plasma or standard plasma.	Survival time without needs of a ventilator. [ Time Frame: Day 30 ]	Not yet recruiting  Estimated Study Completion Date: May 2021	Medium
Convalescent Plasma  Sponsor: The Hospital for Sick Children	NCT04377568  CONCOR-KIDS	Canada	Phase 2, randomized, multicenter, open-label trial of the safety and efficacy of human coronavirus-immune convalescent plasma for the treatment of COVID-19 disease in hospitalized children.  N=100 subjects age 0 to <19 years old, hospitalized with COVID-19. Randomized 1:2 to standard of care (control) or COVID-19 convalescent plasma (C19-CP) plus standard of care while being hospitalized for COVID-19.	Clinical recovery [ Time Frame: at day 30 ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2021	Medium
Globulin  Sponsor: Instituto Grifols, S.A	2020-001696-32	Spain	Phase 2, multicenter, randomized, open-label parallel group pilot study to evaluate safety and efficacy of high dose IntraVenous Immune Globulin (IVIG) plus standard medical treatment versus standard medical treatment alone in hospitalized subjects with COVID-19.  N=100 hospitalized patients with mild-moderate laboratory-confirmed covid-19 randomized to IVIG + standard medical treatment or standard medical treatment alone.	The primary efficacy variable is the proportion of subjects dying or requiring ICU admission on or before Day 29 or who are dependent on high flow oxygen devices or invasive mechanical ventilation on Day 29.	Ongoing  Estimated duration of the trial: 2020-06-08	Medium

Convalescent plasma  Sponsor: University of Catanzaro	NCT04385043	Italy	A phase 2/3 randomized, open-label trial to evaluate the efficacy and safety of the hyperimmune plasma administered add-on to the anti-Covid-19 treatment (standard therapy) compared to patients treated only with standard therapy.  N = 400 patients with severe Covid-19 infection	Decrease in mortality [ Time Frame: 30 days ]	Recruiting  Estimated Primary Completion Date: October 15, 2020	Medium
Anti-SARS-CoV-2 convalescent plasma  Sponsor: Ascension South East Michigan	NCT04411602	United States, Michigan	Phase 1, single-arm study to determine feasibility of convalescent plasma for treating patients in the ICU with COVID-19.  N=90	Transfusion of patients in the ICU with convalescent plasma for COVID-19-induced respiratory failure. [ Time Frame: Track patient progress for 28 days post initial convalescent dose. ]	Recruiting  Estimated Primary Completion Date: December 31, 2020	Low
Convalescent plasma  Sponsor: National and Kapodistrian University of Athens	NCT04408209	Greece	Multicenter, phase 2, single-arm, open-label study to assess the efficacy of the treatment with convalescent plasma in patients with severe COVID-19 infection.  N=60	Survival [ Time Frame: Day 21, 35 and 60 ]  The results will be compared with an historical matched control	Recruiting  Estimated Primary Completion Date: June 30, 2020	Low
Convalescent Plasma  Sponsor: Northside Hospital, Inc.	NCT04408040	United States, Georgia	Phase 2, non-randomized, parallel assignment, open-label study.  N=700 adult patients with covid-19 falling into one of the following groups:  Arm 1: Critical Patients Arm 2: Severe Patients Arm 3: High risk patients Arm 4: Health care providers  All receiving 200-425 mL convalescent plasma donated by patients previously positive for COVID-19	1. Arms 1 & 2: lower death rates than the reported fatality rate [ Time Frame: 30 days after initial treatment ]  2. Arms 1 & 2: number of patients who survive the infection [ Time Frame: 30 days after initial treatment ]  3. Arm 3: number patients with lower incidence of progression to severe or critical disease than the reported case rate [ Time Frame: 30 days after initial treatment ]  4. Arm 4: number of health care providers who are at risk to exposure to COVID-19 who are transfused with convalescent plasma result in lower incidence of developing COVID-19 infection than the reported case rate [ Time Frame: 30 days after initial treatment ]	Not yet recruiting  Estimated Primary Completion Date: June 2022	Low

Convalescent Plasma Sponsor: Biofarma	NCT04407208	Indonesia	Phase 1 single-arm, open-label.  N=10 with confirmed COVID-19 receive 3 times of each 100 ml convalescent plasma on day 0, 3, and 6.	Plaque reduction neutralization test (PNRT) [ Time Frame: day 7 after first transfusion ]  D-dimer, CRP, INR, Oxygenation Index [ Time Frame: day 1,4,7,14 after first transfusion ]  Chest X-ray [ Time Frame: day 1,4,7,28 after first transfusion ]	Recruiting  Estimated Primary Completion Date: August 1, 2020	Low
Convalescent plasma Study leader: Fahmi Hussein Kakamad Applicant: Rawezh qadr	ChiCTR2000033323	Iraq	Severe Reluctant COVID-19 Patients Responding to Convalescent Plasma; A case series.  N=24 age - 45 to 50 years COVID with convalescent plasma treatment	Rate of cure.	Completed	Low
Convalescent Plasma Sponsor: Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh	NCT04403477	Bangladesh	Phase 2, randomized, open-label study to assess the tolerability, efficacy, and dose-response of Convalescent Plasma in severe COVID-19 patients.  N=20 covid-19 patients randomized to Standard treatment or Standard treatment + 200 ml plasma or Standard treatment + 400 ml plasma.	Proportion of In-hospital mortality [ Time Frame: 7 days ] % of patients died after enrolment  Time to death [ Time Frame: 7 days ] Time to death in hours after enrolment	Recruiting  Estimated Primary Completion Date: July 20, 2020	Low
Anti-SARS Cov-2 T Cell Infusion Sponsor: Baylor College of Medicine	NCT04401410	United States	Phase 1 open label single group.  N=20 adults with PCR confirmed COVID-19 and hospitalized requiring medical care.  Intervention: Patients will receive 4 x 10 <sup>7</sup> partially HLA-matched Virus Specific T cells (VSTs) as a single infusion.	Safety of administering partially HLA-matched SARS-CoVSTs to hospitalized COVID19 patients with high risk of progression to mechanical ventilation. [ Time Frame: 14 days post infusion ]  Primary end point: Treatment-related adverse events (tAE), including GVHD, worsening CRS, and any other treatment-related toxicities by day 14 post-infusion.	Not yet recruiting  Estimated Primary Completion Date: August 15, 2021	Low
Convalescent Plasma Sponsor: Institute for Transfusion Medicine of RNM	NCT04397523	North Macedonia	An opne-label, single-grouped, non-randomized trial to evaluate the efficacy and safety of COVID-19 convalescent plasma  N = 20 hospitalized patients with SARS CoV-2 infection	1.Duration of oxygenation and ventilation support 2.Hospital length of stay (LOS) 3.ICU admission 4.Ventilator free days 5.Incidence of serious adverse events	Recruiting  Estimated Primary Completion Date: April 29, 2021	Low

Convalescent Plasma Sponsor: Guizhou Provincial Jiangjunshan Hospital	ChiCTR2000033056	China, Guizhou	Phase 0 interventional study to describe the efficacy of convalescent plasma transfusion for COVID-19 patients.  N = 6 recurrent COVID-19 patients or COVID-19 patients with Long treatment cycle to receive, age 51-84 years old.	Duration of negative changes	Completed  From 2020-01-29 To 2020-04-30	Low
Convalescent Plasma Sponsor: TriHealth Inc.	NCT04392232	United States, Ohio	Phase 2, open-label, non-randomized, single arm study to evaluate the effectiveness of convalescent plasma in combatting the symptoms and effects of COVID-19.  N=100 hospitalized subjects with severe/high risk disease of COVID-19 infection.  Patients will receive COVID-19 convalescent plasma obtained from an FDA-registered blood establishment (Hoxworth) that follows donor eligibility criteria and donor qualifications as outlined in section III.C.I of the Investigational COVID-19 Convalescent Plasma Guidance for Industry.	Survival Rate [ Time Frame: At 28 Days ]	Recruiting  Estimated Primary Completion Date: December 31, 2020	Low
Convalescent Plasma Sponsor: Federal Research Clinical Center of Federal Medical & Biological Agency, Russia	NCT04392414  CovPlas-Covid19	Russia	Phase 2, randomized, open-label, prospective study of the safety and efficacy of hyperimmune convalescent plasma in moderate and severe COVID-19 disease.  N=60 subjects aged 18-75 years with confirmed COVID-19 infection randomized to COVID-19 convalescent hyperimmune plasma or non-convalescent fresh frozen plasma (Standard plasma)	The number and proportion of patients with the normal body temperature ( $\leq 37.2$ C) at the day 1, 2, 3, 4, 5, 6, 7 after the start of therapy [ Time Frame: Days 1, 2, 3, 4, 5, 6, 7 ]	Recruiting  Estimated Primary Completion Date: August 1, 2020	Low
Convalescent plasma Sponsor: Joakim Dillner	NCT04390178	Sweden	A phase 1/2, open-label, single-group, non-randomised controlled, clinical trial to assess the safety, tolerability and efficacy of convalescent plasma.  N = 10 with varying degrees of COVID-19 illness.	Disease progression [ Time Frame: 28 days ]	Active, not recruiting  Estimated Primary Completion Date: June 2020	Low

Convalescent plasma  Sponsor: University Hospital, Basel, Switzerland	NCT04389944	Switzerland	Open-label, single arm study to investigate individual treatments using convalescent severe acute respiratory Syndrome Coronavirus 2 (SARS-CoV-2) plasma in SARS-CoV-2 infected patients at risk for disease progression.  N=15 subjects with moderate to severe disease at risk for transfer to intensive care unit or patients at the intensive care unit with limited treatment options will be treated.	1. Serious adverse events in convalescent plasma treated patients [ Time Frame: From baseline (enrolment) to 24 hours follow-up ]  2. Virologic clearance in nasopharyngeal swab of convalescent plasma treated patients [ Time Frame: at Baseline (admission to Covid-ward), day -1 (before plasma), day 1 (after plasma), day7, day 14, day 28 ]  3. Transfer to ICU [ Time Frame: at Baseline (admission to Covid-ward) until day 28 ]  4. in-hospital death [ Time Frame: at Baseline (admission to Covid-ward) until day 28 ]  5. Virologic clearance in plasma of convalescent plasma treated patients [ Time Frame: at Baseline (admission to Covid-ward), day -1 (before plasma), day 1 (after plasma), day7, day 14, day 28 ]	Recruiting  Estimated Primary Completion Date: June 30, 2020	Low
Convalescent Plasma  Sponsor: Thomas Jefferson University	NCT04389710	United States, Pennsylvania	Phase 2, open-label expanded access program to make appropriately matched convalescent plasma available for the treatment of patients in acute care facilities infected with SARS-CoV-2 who have severe or life-threatening COVID-19, or who are judged by a healthcare provider to be at high risk of progression to severe or life-threatening disease.  N=100	Number of patients who receive COVID-19 convalescent plasma transfusions in acute care facilities infected with SARS-CoV-2 [ Time Frame: 1 year ]	Recruiting  Estimated Primary Completion Date: April 14, 2021	Low
Inactivated Convalescent Plasma  Sponsor: National Blood Center Foundation, Hemolife	NCT04385186	Colombia (multicenter)	Phase 2, single-blinded, controlled, randomized trial on the use of inactivated convalescent plasma as a Therapeutic Alternative in Hospitalized Patients CoViD-19  N = 60, hospitalized with covid-19 associated pneumonia, ARDS, sepsis or	Mortality reduction in CoViD-19 patients treated with inactivated convalescent plasma + support treatment [Time Frame: Over a period of 28 days]	Not yet recruiting  Estimated Primary Completion Date: September 30, 2020	low

			septic shock randomized to Convalescent plasma+Support treatment selected by the hospital or support treatment alone			
Convalescent plasma Sponsor: Henry Ford Health System	NCT04385199	United States, Michigan	A phase 2, randomized, open-label pilot study of tolerability and efficacy of transfusion of convalescent plasma compared to standard of care  N = 30 patients with COVID-19 respiratory disease	Improvement in respiratory disease [ Time Frame: day 1 post transfusion ]	Recruiting  Estimated Primary Completion Date: August 1, 2020	Low
Convalescent Plasma Sponsor: Fundacion Arturo Lopez Perez	NCT04384588	Chile	A phase 2/3 open-label, 4 arms , non randomized clinical trial assessing the use of convalescent plasma from COVID-19 recovered donors  N = 100 oncological and non-oncological patients with current severe COVID-19 infection or in patients with risk factors of major complications secondary to COVID-19 infection	1.in-hospital mortality secondary to COVID-19 among patients treated with convalescent plasma [ Time Frame: 1 year ] 2.safety of the use of convalescent plasma from COVID 19 donors [ Time Frame: 1 year ]	Recruiting  Estimated Primary Completion Date: April 6, 2021	Low
Convalescent Plasma Sponsor: Joakim Dillner, Karolinska University Hospital	NCT04384497	Sweden	Phase 1/2, single group assignment, open-label, non-randomised controlled safety and dose identifying trial.  N=50 hospitalized subjects with active COVID-19 defined as symptoms + SARS CoV-2 identified from upper or lower airway samples.  Convalescent plasma treatment: Convalescent plasma from consenting individuals who have recovered from SARS-CoV-2 infection. 200 ml convalescent plasma daily until SARS-CoV-2 is no longer detectable in the blood up to a maximum of 7 CP infusions. CP will be given as a slow infusion over 1 hour. Patients will be monitored for adverse events, especially allergic reactions	Number and proportion of patients with progression to ventilation or sustained requirement of supplementary oxygen therapy [ Time Frame: Measured in the first 28 days after inclusion. ]	Recruiting  Estimated Primary Completion Date: June 2020	Low

Convalescent plasma Sponsor: Assiut University	NCT04383548	Not stated	A open-label clinical study for efficacy of anti-corona VS2 immunoglobulins prepared from COVID19 convalescent plasma in prevention of infection in high risk groups as well as treatment of early cases of COVID19 patients  N = 100	1.Efficacy of COVID19 hyper immunoglobulins for patients [ Time Frame: 2 weeks ] 2.Efficacy of COVID19 hyper immunoglobulins for high risk groups [ Time Frame: 1 month ] 3.Safety of anti-SARS-CoV-2 hyper immunoglobulins assessed by percentage of adverse events [ Time Frame: 72 hours ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2020	Low
Convalescent plasma Sponsor: Indonesia University	NCT04380935	Indonesia	A phase 2/3 randomized, open-label study to evaluate the effectiveness and safety of convalescent plasma therapy compared to standard of care  N = 60 COVID-19 patients with acute respiratory distress syndrome	All-cause mortality [ Time Frame: up to 28 days ]	Not yet recruiting  Estimated Primary Completion Date: August 31, 2020	Low
Convalescent Plasma Sponsor: Johns Hopkins University	NCT04377672	USA?	Phase 1, single group assignment, open-label study to evaluate the safety of administration of plasma containing antibodies to the SARS-CoV-2 virus (i.e., convalescent plasma) and if it is able to prevent disease or lessen the severity of disease in individuals who are at high risk of developing COVID-19 due to a recent exposure.  N=30	Safety of treatment with high-titer anti-SARS-CoV-2 plasma as assessed by adverse events [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: May 18, 2021	Low
Hyperimmune plasma	NCT04321421	Italy  San Matteo Hospital	Interventional, open label N=49 Age: 18 and above	Death within 7 days (death from any cause)  Longitudinal assessment of COVID-19 pts treated with hyperimmune plasma	Recruiting  Initiated on Mar 17, 2020 Estimated Primary completion: 31.05.2020	Low
Convalescent Plasma Sponsor: Enos Bernasconi	NCT04365439	Switzerland ???	Single-group assignment, open-label trial to evaluate convalescent plasma for the treatment of moderate-severe COVID-19.  N=10 hospitalized adult patients with confirmed COVID-19 infection	1. Titers of anti-SARS-CoV-2 antibodies in the plasma derived from convalescent donors [ Time Frame: At plasma donation ] 2. Change in titers of anti-SARS-CoV-2 antibodies in patients' plasma [ Time Frame: Change from baseline at day 21 ] 3. Change in inflammatory cytokines concentration (e.g. IL-6, HMGB1) [ Time Frame: Change from baseline at day 7 ]	Not yet recruiting  Estimated primay Completion Date: May 30, 2020	Low

				4. Viral load decay in the recipient after plasma transfusion with semiquantitative assessment of nasopharyngeal swabs [ Time Frame: Change from day of diagnosis at day 1 ]		
Convalescent plasma  Sponsor: Centro de Hematología y Medicina Interna	NCT04357106  (COPLA)	Mexico	A phase 2, open-label, single group, clinical trial.  N = 10	Lung injury [ Time Frame: 7 days]  Overall survival [ Time Frame: 15-30 days ]	Recruiting  Estimated Primary Completion Date: July 2020	Low
Convalescent Plasma  Sponsor: U.S. Army Medical Research and Development Command	NCT04360486	Not stated	Expanded access open-label, single-arm, multi-site protocol to provide convalescent plasma as a treatment for patients diagnosed with severe, or life-threatening COVID-19	Not Applicable	Available	Low
Convalescent Plasma Expanded access	NCT04358211	United States, Louisiana	Expanded Access to Convalescent Plasma to Treat and Prevent Pulmonary Complications Associated With COVID-19. Population: 1)intubated, mechanically ventilated patients with confirmed COVID-19 pneumonia by chest X-ray or chest CT. 2)hospitalized patients with acute respiratory symptoms between 3 and 7 days after the onset of symptoms, with COVID-19.	Not applicable	Available	Low
Convalescent Plasma  Sponsor: Royal College of Surgeons in Ireland - Medical University of Bahrain	NCT04356534	Bahrain	A prospective and randomized open label trial to compare plasma therapy using convalescent plasma with antibody against SARS-CoV-2 to usual supportive therapy in COVID-19 N = 40 patients with pneumonia and hypoxia with the criteria that all require oxygen therapy.	Requirement for invasive ventilation [ Time Frame: 10 day or until discharge ]	Not yet recruiting  Estimated primary Completion Date: May 3, 2020	Low
Convalescent plasma  Sponsor: Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado	NCT04356482  (COPLASCOV19)	Mexico	Phase 1/2, open-label, one-armed study evaluating what is the minimum effective dose necessary of convalescent plasma for getting better in severely ill (not intubated) or very severely ill (intubated) patients  N = 90	Clinical improvement  Improvement in tomographic image  Test positivity for COVID-19  Early and late complications associated to convalescent plasma	Not yet recruiting  Estimated Study Completion Date: December 2020	Low

CoVID-19 Plasma Sponsor: The Christ Hospital	NCT04355897	United States, Ohio	Single group assignment. N=100 patients hospitalised with covid-19	Mortality	Recruiting; Estimated Primary Completion: July 2020	Low
Convalescent plasma Sponsor: Medical College of Wisconsin	NCT04354831	United States, Wisconsin	Phase 2, open label, non-randomized trial assessing the efficacy and safety of anti-SARS-CoV-2 convalescent plasma in hospitalized patients with acute severe respiratory symptoms from COVID-19. N=131 divided in a ICU cohort and a hospitalized non-ICU cohort – both cohorts receive anti-SARS-CoV-2 convalescent plasma.	Overall Mortality within 60 days [ Time Frame: sixty days from infusion of plasma ]	Not yet recruiting  Estimated Primary Completion Date: May 1, 2022	Low
Convalescent plasma Sponsor: Eastern theater General Hospital, China, Jiangsu	ChiCTR2000031501	China, Hubei	Non randomized, prospective cohort study to explore whether convalescent plasma can improve the clinical prognosis of severe and critical covid-19 patients.  N=20 divided into: Group 1: Routine treatment + Infusion of convalescent plasma Group 2: Routine treatment	Hospital mortality [Time frame: until hospital discharge or death]	Not yet recruiting  From 2020-03-17 To 2020-07-17	Low
Antibody-Rich Plasma from COVID-19 recovered patients Sponsor: Ain Shams University	NCT04348877	Egypt	Prospective interventional study, single arm of purified convalescent plasma transfusion as an add on therapy for the standard of care treatment (national guideline) (Oseltamivir (75mg/12 hours for 5-10 days) and hydroxychloroquine (400mg twice in first day, 200 twice for 4-9 days) ± Azithromycin 500mg daily for 5 days.  N = 20 patients age > 18 with severe or immediately life-threatening COVID-19 will receive 400 millimeter of Antibody-Rich Plasma.	Viral COVID-19 clearance [Time Frame: 14 days]	Not yet recruiting  Estimated Study Completion Date: December 2020	Low
Convalescent plasma Sponsor: King Fahad Specialist Hospital Dammam	NCT04347681	Saudi Arabia	Phase 2, Non-Randomized, open-label, multicenter trial for potential efficacy of convalescent plasma to treat severe COVID-19 and patients at high risk of developing severe COVID-19.  N=40	1.ICU length of stay [ Time Frame: Time from transfer into ICU to time of transfer out from ICU, Up to 12 weeks. ]  2.Safety of convalescent plasma & Serious adverse reactions. [ Time Frame: time from signing consent to	Recruiting  Estimated Primary Completion Date: December 31, 2020	Low

				one month after transfusion, Up to 12 weeks. ]		
Convalescent antibodies  Sponsor: A.O. Ospedale Papa Giovanni XXIII	NCT04346589	Italy, multiple sites	Open-label, single group assignment, pilot study to explore the efficacy and safety of rescue therapy with antibodies from convalescent patients obtained with double-filtration plasmapheresis (DFPP) and infused in critically ill ventilated patients with COVID-19  N=10	Number of mechanical ventilation days. [ Time Frame: Through study completion, an average of 6 months. ]	Not yet recruiting  Estimated Primary Completion Date: July 2020	Low
Convalescent Plasma  Sponsor: Institute of Liver and Biliary Sciences, India	NCT04346446	India	A pilot randomized, open-label, controlled trial.  N = 20 severe patients randomized to receive either standard medical therapy (supportive therapy) or up to 500 ml of convalescent plasma and standard medical therapy	Proportion of patients remaining free of mechanical ventilation in both groups	Recruiting  Estimated Study Completion Date: June 30, 2020	Low
Convalescent plasma  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04345991  CORIPLASM	France	Phase 2, Multiple Randomized Controlled Trials Open-label study to evaluate the efficacy of convalescent plasma to treat SARS-COV2 infected patients.  N=120 patients included in the CORIMUNO-19 cohort randomized to experimental group or control group.	Survival without needs of ventilator utilization or use of immunomodulatory drugs [ Time Frame: At day 14 after randomization ] WHO progression scale $\geq 6$ [ Time Frame: at day 4 of randomization ]	Not yet recruiting Estimated Primary Completion Date: May 15 , 2020	Low
Convalescent plasma  Fresh frozen plasma (FFP) with marketing authorisation in Germany issued by Paul-Ehrlich-Institute	2020-001310-38  CAPSID2020-DRK-BSD	Germany	A randomized, prospective, open label clinical trial on the use of convalescent plasma compared to best supportive care in patients with severe COVID-19 N=106 patients with severe COVID-19 ransomised to convalescent plasma or standard of care	Composite endpoint of: - Survival AND - no longer fulfilling criteria of severe COVID-19 within 21 days after randomization	ongoing	Low
Convalescent Plasma  Sponsor: Mayo Clinic	NCT04338360	Mayo cilnics in Arizona, Florida, Minnesota, Wisconsin, United states	Expanded access Patients in acute care facilities infected with SARS-CoV-2 who have severe or life-threatening COVID-19, or who are judged by a healthcare provider to be at high risk of progression to severe or life-threatening disease.	Not stated	Available	Low

Immunoglobulin from cured COVID-19 patients  Sponsor: Union hospital of Tongji Medical College, Huazhong University of Science and Technology	ChiCTR2000030841	China, Hubei, Wuhan	Non randomized control study to evaluate the efficacy and safety of immunoglobulin from cured COVID-19 patients in the treatment of acute severe COVID-19  N=10 diagnosed with acute severe 2019-nCoV pneumonia. Experimental group (n=5): Immunoglobulin of cured patients Control group (n=5): gamma-Globulin	Time to Clinical Improvement (TTCI)	Recruiting  Study execute time: 2020-02-17 to 2020-05-31	Low
anti-SARS-CoV-2 convalescent plasma  Sponsor: Orthosera Kft.	NCT04345679	Not stated yet	Single arm study N=20 patients with COVID-19	Changing of viral load of SARS-CoV2 [ Time Frame: Day 1,3, 7, 12 ]	Not yet recruiting;  Estimated Primary Completion: June 1, 2020	Low
Convalescent plasma  Sponsor: University of Chicago	NCT04340050	United States, Illinois	Early phase 1 study. Single arm study. N=10 patients with severe or critical COVID-19	Feasibility; Type of respiratory support [ Time Frame: 28 days after plasma administration ]	Recruiting; Estimated Primary Completion: December 31, 2020	Low
Infusion of blood plasma from COVID-19 survivors	Very early news <a href="https://www.straitstimes.com/world/france-to-test-plasma-of-coronavirus-survivors-to-treat-sick">https://www.straitstimes.com/world/france-to-test-plasma-of-coronavirus-survivors-to-treat-sick</a> Paris hospital authority AP-HP, the National Medical Research Institute INSERM, and the National Blood Service EFS	France	Randomised, half to receive convalescent plasma  N=60	TBD	Not recruiting	
HB-adMSCs (Hope Biosciences Autologous Mesenchymal Stem Cell Therapy)  Sponsor: Hope Biosciences	NCT04349631	Texas, US	Phase II, open label, single-center, prevention N: 56 All ages and all sexes	1) Incidence of hospitalization for COVID-19  2) Incidence of symptoms for COVID-19 [ Time Frame: Week 0 through week 26 (end of study) ]	Enrolling  Estimated study completion date: Dec 31, 2020	Low
Convalescent Plasma	NCT04332835	Columbia	Open label randomised trial. N= 80 patients with moderate COVID-19 Randomised to Convalescent Plasma + azithromycin + hydroxychloroquine or azithromycin + hydroxychloroquine	Change in Viral Load [ Time Frame: Days 0, 4, 7, 14 and 28 ]  Change in Immunoglobulin M COVID-19 Titers [ Time Frame: Days 0, 4, 7, 14 and 28 ]	Not yet recruiting; Estimated Primary Completion: August 31, 2020	Low

				Change in Immunoglobulin G COVID-19 Titers [ Time Frame: Days 0, 4, 7, 14 and 28 ]		
Convalescent Plasma	NCT04333251	Not stated	Phase 1 randomised trial. N=115 hospitalised patients randomised to Convalescent Plasma or oxygen therapy	reduction in oxygen and ventilation support	Estimated Primary Completion: December 31, 2022	Low
Convalescent Plasma	NCT04333355	Mexico	Phase 1 study, single arm. N=20 patients with Serious or life-threatening infection defined.	Adverse effects	Estimated Primary Completion: December 20, 2020	Low
Immunoglobulin Sponsor: Peking Union Medical College Hospital	NCT04261426	Tongji Hospital	Phase 2/3 randomised, Open-label, Controlled, Single-center Study  N=80 patients with severe or critically ill covid19 respiratory disease randomised to IV immunoglobulin or standard care	1. Clinical improvement based on the 7-point scale (discharged to death) [ Time Frame: 28 days after randomization ] 2. and 3. Lower murray lung injury score (day 7 and day 14)	Not recruiting yet;  Estimated primary completion date: April 30, 2020	Low
Immunoglobulin	NCT04264858	China, Hubei	An Exploratory Clinical Study  N=10 patients with severe covid19. Treatment: immunoglobulin From cured 2019-nCoV Pneumonia Patients Or gammaglobulin	Time to Clinical Improvement (decline of two categories a six-category ordinal scale of clinical status which ranges from 1 (discharged) to 6 (death).)	Not recruiting yet;  Estimated primary completion date: April 30, 2020	Low
Anti-SARS-CoV-2 Inactivated Convalescent Plasma	NCT04292340	China, Shanghai	Case-Only, observational study: The Efficacy and Safety of Anti-SARS-CoV-2 Inactivated Convalescent Plasma in the Treatment of Novel Coronavirus Pneumonia Patient (COVID-19)  N=15	The virologic clearance rate	Recruiting;  Estimated primary completion: July 31, 2020	Low
Convalescent plasma treatment	ChiCTR2000029850; <a href="http://www.chictr.org.cn/showproj.aspx?proj=49533">http://www.chictr.org.cn/showproj.aspx?proj=49533</a>	Zhejiang, China	Prospective cohort study; N=20 with severe covid-19	Fatality rate	Recruiting; From2020-02-15 To 2022-02-15	Low
Convalescent plasma treatment	ChiCTR2000030039 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49544">http://www.chictr.org.cn/showproj.aspx?proj=49544</a>	Jiangsu	90 patients with normal to critical covid-19. N=30 treated with convalescent plasma N=60 treated with conventional therapy	SARS-CoV-2 DNA, And SARS-CoV-2 antibody levels	Recruiting, Unknown end-date	Low
Convalescent plasma	ChiCTR2000030627 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50727">http://www.chictr.org.cn/showproj.aspx?proj=50727</a>	He'nan, China	Randomised controlled trial. N=30 patients with severe or critical covid-19 randomised 1:1 to convalescent plasma or conventional treatment	Temperature, Virus nucleic acid detection	Recruiting;  From2020-02-01 To 2020-05-30	Low

Hyperimmune Plasma	NCT04321421	Pavia, PV, Italy	Single arm treatment of 49 patients with moderate to severe COVID-19 undergoing mechanical ventilation or continuous positive airway pressure.	death [ Time Frame: within 7 days ]	Active, not recruiting; Estimated primary completion: May 31, 2020	Low
Convalescent Plasma	NCT04325672	United States, Minnesota	An Open Label, Phase 2A Study of High-Titer Anti-SARS-CoV-2 Plasma in Hospitalized Patients With COVID-19 N=20 patients	Change in RNA levels of SARS-CoV-2 from nasopharyngeal across time; ICU Admissions; In-hospital mortality; Hospital Length of Stay	Not yet recruiting; Estimated Primary Completion: December 31, 2022	Low
Convalescent Plasma	NCT04327349	Iran	Single group assignment; N=30	15 primary outcomes stated, among those, 10- and 30 days mortality	Enrolling by invitation	Low
Convalescent Plasma Sponsor: Saint Francis Care	NCT04343261	United States, Connecticut	Phase 2, single center, open label, single group assignment to investigate treatment with convalescent plasma from previously COVID-19 infected persons.  N = 15, aged 18 to 90 years old, with laboratory confirmed COVID-19 with clinical status as severe or immediately life-threatening.	1. Mortality within 28 days. 2. Reduction of viral load within 7 days. Change in Serum Antibody Titers within 7 days.	Recruiting. Study started on 10 April 2020. Recruiting  Estimated Primary Completion Date: 01 December 2020.	Low
Convalescent Plasma Sponsor: University of Arkansas	NCT04363034	Not stated	An expanded access treatment protocol to treat up to 100 subjects with severe or life-threatening, laboratory confirmed COVID-19 with COVID-19 convalescent plasma	Not applicable	Available	Low
Convalescent Plasma	NCT04332380	Columbia	Single arm study of N=10 patients hospitalised with COVID-19	Change in Viral Load; Change in Immunoglobulin M and G COVID-19 antibodies Titers	Estimated Primary Completion: August 31, 2020	Low
Anti-SARS-CoV-2 inactivated convalescent plasma	ChiCTR2000030381 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50290">http://www.chictr.org.cn/showproj.aspx?proj=50290</a>	Hubei, China	Randomized, open-label, controlled and single-centre trial  N=40 patients with moderate covid-19	Clinical symptom improvement rate: improvement rate of clinical symptoms = number of cases with clinical symptom improvement /number of enrolling cases * 100%	Not yet recruiting  From 2020-02-29 To 2020-05-31	Low
Anti-SARS-CoV-2 inactivated convalescent plasma	ChiCTR2000030312 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50258">http://www.chictr.org.cn/showproj.aspx?proj=50258</a>	Hubei, China	Single arm n=24 treated with anti SARS-CoV-2 inactivated convalescent plasma	Clinical symptom improvement rate: improvement rate of clinical symptoms = number of cases with clinical symptom improvement /number of enrolling cases * 100%	Cancelled due to modification of protocol (new study number (ChiCTR2000030381))	Low
Convalescent Plasma Sponsor: University of Virginia	NCT04374565	United States, Virginia	A phase 2, single-group, open-label study to to assess preliminary efficacy and confirm safety of infusions of high titer antiSARS-CoV-2 convalescent plasma	1. Transfer to ICU [ Time Frame: Days 0 - 60 ]  2. 28 day mortality [ Time Frame: Days 0 - 60 ]	Not yet recruiting  Estimated Study Completion Date: April 5, 2021	Low

			N = 29 hospitalized patients with acute respiratory symptoms with or without confirmed interstitial COVID-19 pneumonia by CXR or chest CT.			
Plasma exchange  Sponsor: Fundacion Clinic per a la Recerca Biomédica	NCT04374539	Spain	A phase 2, open label randomized controlled clinical trial to evaluate the efficacy of plasma exchange in critically ill patients with COVID-19 disease.  N = 116 patients admitted in ICU with invasive mechanical ventilation;	Impact of plasma exchange [ Time Frame: 28 days ]	Recruiting  Estimated Study Completion Date: August 29, 2021	Low
Convalescent Plasma  Sponsor: Fondazione Policlinico Universitario Agostino Gemelli IRCCS	NCT04374526	Italy	A phase 2/3, randomized, open-label trial to evaluate whether early transfusion of COVID-19 convalescent plasma in elderly COVID-19 patients can prevent disease progression.  N = 182 patients age $\geq$ 65	Rate of COVID-19 progression [ Time Frame: days 1 to 14. ] Proportion of patients without progression in severity of pulmonary disease defined as worsening of 2 points in the ordinal scale of WHO within day 14	Not yet recruiting  Estimated Study Completion Date: June 30, 2021	Low
Convalescent plasma  Sponsor: Max Healthcare Insititute Limited	NCT04374487	India	Phase 2, open-label, controlled, randomized trial on the Efficacy of Convalescent Plasma to Limit COVID-19 Associated Complications  N = 100, age 18-85, with confirmed Covid-19 and any of the two: 1. PaO <sub>2</sub> / FiO <sub>2</sub> <300 2. Respiratory Rate > 24/min and SaO <sub>2</sub> < 93% on room air randomized to receive convalescent plasma or standard of care	The primary outcome is a composite measure of the avoidance of - 1. Progression to severe ARDS (P/F ratio 100)  All-cause Mortality at 28 days [Time Frame: depends on the total treatment time of the subjects within one year period of the trial.]	Not yet recruiting  Estimated Study Completion Date: May 9, 2021	Medium
Convalescent Plasma  Sponsor: AdventHealth	NCT04374370	United States, Florida	Expanded Access Protocol on use of Convalescent Plasma for Covid-19  N: Intermediate-size Population, age 6-99 with severe or immediately life-threatening Covid-19 infection	Not stated	Available	
Convalescent Plasma  Sponsor: University of Colorado, Denver	NCT04372368	United States, Colorado	Expanded access program to provide COVID-19 convalescent plasma to patients with moderate to severe or life-threatening manifestations of COVID-19, or documented to be at high risk of developing such manifestations.	Not Applicable	Available	Low

Convalescent plasma  Sponsor: Pontificia Universidad Catolica de Chile	NCT04375098	Chile	A phase 2 open-label randomized trial in which patients with high risk of COVID19-associated respiratory failure will be randomized to early treatment with convalescent plasma.  N = 30	Percentage Mechanical Ventilation, hospitalization longer than 14 days or death during hospitalization [ Time Frame: 1 year follow up ]	Recruiting  Estimated Primary Completion Date: December 2020	Low
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## Immunoglobulins

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Human immunoglobulin  Sponsor: Sponsor: Centre Hospitalier St Anne	NCT04350580  ICAR	France	Randomised, double-blinded, placebo-controlled trial. N=138 patients with SARS-CoV-2 and ARDS randomized to immunoglobulin or placebo	Ventilator-free days [ Time Frame: 28 days ]	Recruiting; Estimated Primary Completion; June 2020	High
Octagam 10%  Sponsor: Octapharma USA	2020-002482-34  GAM10-10  NCT04400058	United States  (multiple sites globally)	Phase 3, randomized, placebo-controlled, double-blinded trial to evaluate the efficacy and safety of Octagam 10% therapy in COVID-19 patients with severe disease progression  N=54 adults with RT-PCR confirmed COVID-19 infection randomized to Octagam 10% infusion or placebo.	Stabilization or improvement in clinical status defined as maintenance or improvement by one category on a 6-category clinical status scale on Day 7. 1. Hospital discharge or meet discharge criteria (discharge criteria are defined as clinical recovery, i.e. fever, respiratory rate, oxygen saturation return to normal, and cough relief). 2. Hospitalization, not requiring supplemental oxygen. 3. Hospitalization, requiring supplemental oxygen (but not NIV/HFNC). 4. ICU/hospitalization, requiring NIV/HFNC therapy. 5. ICU, requiring Extracorporeal Membrane Oxygenation (ECMO) and/or IMV. 6. Death.	Estimated Primary Completion Date: 2020-08-21	High
Intravenous Immunoglobulin (IVIg) /Octagam  Sponsor: George Sakoulas, MD, Sharp HealthCare	NCT04411667	United States, California	Phase 4, multicentre, randomized, open-label study to identify whether or not IVIG can halt the progression to respiratory failure requiring mechanical ventilation in subjects admitted to the hospital with confirmed COVID-19	Mechanical Ventilation [ Time Frame: from date of patient admission to date of patient discharge or date of death, whichever came first, assessed up to 45 days ]	Recruiting  Estimated Primary Completion Date: November 1, 2020	Low

			N=40 randomized 1:1 to standard of care + Octagam infusion for 3 days or standard of care alone.			
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## Monoclonal antibodies

Tocilizumab (RoActemra) alone or in combination with other drugs

Tocilizumab binds specifically to both soluble and membrane-bound IL-6 receptors and has been shown to inhibit soluble and membrane-bound IL-6R-mediated signaling. Licensed.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Tocilizumab  Sponsor: The First Affiliated Hospital of University of science and technology of China (Anhui Provincial Hospital)	ChiCTR2000029765 <a href="http://www.chictr.org.cn/showprojen.aspx?proj=49409">http://www.chictr.org.cn/showprojen.aspx?proj=49409</a>	Anhui, China	Phase 4, Randomised controlled trial. Blinding not stated  N=198 Severe cases of covid19 randomised to tocilizumab, or conventional treatment	Cure rate	Recruiting  May 10, 2020	High
Tocilizumab  Sponsor: Roche	NCT04320615  EudraCT: 2020-001154-22	Canada Denmark France Germany Ireland Italy Netherlands Spain Sweden Switzerland United Kingdom United States	Randomized, Double-Blind, Placebo-Controlled, Multicenter Study  N=330 Patients With Severe COVID-19 randomised to Tocilizumab or placebo	Clinical Status Assessed Using a 7-Category Ordinal Scale [ Time Frame: Day 28 ]	Recruiting;  Estimated primary completion: August 31, 2021	High
Tocilizumab vs sarilumab	NCT04322773  EudraCT: 2020-001275-32	Denmark	An Open-Label, Multicenter Sequential and Cluster Randomized Trial; N=200 patients with severe COVID-19 randomised to RoActemra iv, RoActemra sc, Kevzara sc, or Standard medical care	Time to independence from supplementary oxygen therapy	Recruiting; Estimated Primary Completion: June 1, 2021	High
Tocilizumab  Sponsor: University Hospital Inselspital, Berne	NCT04335071	Switzerland	A multicenter, double-blind, randomized controlled phase II trial  N=100 hospitalised with COVID-19 randomised to	Number of patients with ICU admission [ Time Frame: 7 days after randomisation ]	Recruiting; Estimated Primary Completion: October 2020	High

			tocilizumab or Placebo	Number of patients with intubation [ Time Frame: 14 days after randomisation ] Number of patients with death [ Time Frame: 28 days after randomisation ]		
Tocilizumab  Sponsor: Massachusetts General Hospital	NCT04356937	United States, Massachusetts	Phase 3, double-blinded, placebo-controlled, randomized trial on Tocilizumab to Prevent the Progression of Hypoxemic Respiratory Failure  N = 300, age > 18, Hospitalized Non-Critically Ill Patients With COVID-19, randomized 2:1 to Tocilizumab or placebo	Proportion of patients that require mechanical ventilation [Time Frame: 28 days]	Not yet recruiting  Estimated primary Completion Date: June 30, 2020	High
Tocilizumab  Sponsor: Genentech, Inc	NCT04372186	Not stated	Phase 3, randomized, double-blind, placebo-controlled, multicenter study to evaluate the efficacy and safety of Tocilizumab in hospitalized patients with COVID-19 Pneumonia.  N=379 hospitalized covid-19 patients randomized to Tocilizumab + standard of care or placebo + standard of care.	Cumulative Proportion of Participants Requiring Mechanical Ventilation by Day 28 [ Time Frame: Up to Day 28 ]	Not yet recruiting  Estimated Primary Completion Date: August 5, 2020	High
Tocilizumab  Sponsor: Hadassah Medical Organization	NCT04377750	Israel	Phase 4, multicenter, open-label randomized control study to assess the therapeutic value of tocilizumab in patients affected by SARS-CoV2 infection with a pulmonary manifestation causing hypoxia.  N=500 covid-19 positiv subjects randomized 2:1 to Tocilizumab (8 mg/kg given IV) or placebo.	Survival [ Time Frame: One-month ]	Recruiting  Actual Primary Completion Date: April 29, 2020	Medium
Tocilizumab  Sponsor: Beneficência Portuguesa de São Paulo	NCT04403685  TOCIBRAS	Brazil	Phase 3, prospective, randomized, superiority, open-label, controlled trial on the safety and efficacy of Tocilizumab in moderate to severe COVID-19 and increased inflammatory markers.  N=150 randomized 1:1 to best supportive care (BSC) versus Tocilizumab + BSC	Evaluation of clinical status [ Time Frame: Day 15 of the trial ]	Recruiting  Estimated Primary Completion Date: July 8, 2020	Medium

Tocilizumab Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04331808	Not stated	Randomized Controlled Trials Open-label. N=240 patients included in the CORIMUNO-19 cohort	Survival without needs of ventilator utilization at day 14; WHO progression scale <=5 at day 4; Cumulative incidence of successful tracheal extubation; WHO progression scale <=7 at day 4	Not yet recruiting; Estimated Primary Completion: March 31, 2021	Medium
Tocilizumab Sponsor: Hoffmann-La Roche	NCT04363736	Not applicable	Phase 2, Open-Label, Randomized, Multicenter Study to Investigate the Pharmacodynamics, Pharmacokinetics, Safety, and Efficacy of Intravenous Tocilizumab in Patients With Moderate to Severe COVID-19 Pneumonia.  N = 100 hospitalized patients with COVID-19 pneumonia to receive intravenous (IV) tocilizumab (TCZ) at a dose of 8 mg/kg or 4mg/kg in addition to standard-of-care treatment.	Concentration of C-Reactive Protein (CRP) [Time Frame: Day 7]	Not yet recruiting Estimated primary Completion Date: June 11, 2020	Medium
Tocilizumab Sponsor: Emory University	NCT04361552	United States, Georgia	Phase 3, randomized, open-label trial that compares the effect of adding tocilizumab to standard of care versus standard of care alone in treating cytokine release syndrome (CRS) in patients with SARS-CoV-2 infection.  N=180 hospitalized covid-19 patients randomized to tocilizumab + standard of care or standard of care alone.	7-day length of invasive mechanical ventilation (MV) [ Time Frame: Up to 7 days ]  30-day mortality rate [ Time Frame: Up to 30-day after randomization ]	Recruiting  Estimated Primary Completion Date: May 30, 2022	Medium
Tocilizumab (protocol in Italian)	2020-001386-37	Italy	N=398	ICU admission, death, or clinical deterioration	Ongoing	Medium
Tocilizumab	Eudract number:2020-001110-38 NCT04317092  TOCIVID-19	Italy, Multicentre	Multicenter single-arm, open-label, phase 2 study on the efficacy and tolerability of tocilizumab in the treatment of patients with COVID-19 pneumonia Control: retrospective observational cohort Sample size (estimated) N = 330	Mortality rate one month after registration	Ongoing Estimated primary completion/estimated study completion Dec 2020/Dec 2022	Medium
Tocilizumab + Hydroxychloroquine + Azithromycin	NCT04332094	Barcelona, Spain	Randomised open label study. N=276 hospitalised patients randomised to Tocilizumab + Hydroxychloroquine + Azithromycin, or Hydroxychloroquine + Azithromycin	In-hospital mortality; Need for mechanical ventilation in the Intensive Care Unit	Not yet recruiting; Estimated Primary Completion Date: September 2020	Medium

Tozilizumab + Pembrolizumab	NCT04335305	Not stated	A Multicenter, Randomized, Open-Label, Phase II Trial N=24 patients with severe COVID-19 randomised to Tozilizumab + Pembrolizumab or standard of care	Percentage of patients with normalization of SpO2 $\geq$ 96%	Not yet recruiting; Estimated Primary Completion: May 15, 2020	Medium
Ciclosporin, Tocilizumab  Sponsor: Fundació Hospital Universitari Vall d'Hebron - Institut de Recerca (VHIR)	2020-001437-12	Spain	Phase 4, randomized, controlled, open-label, parallel group, 4-armed, one-site trial in adult patients with COVID-19 severe pneumonia treated with immunomodulatory drugs + standard care  N=290	Mortality at day 28 after treatment initiation (proportion of patient died that day).	Ongoing Start date: 2020-04-09 Estimate of duration: 6 months	Medium
Tocilizumab vs sarilumab  Sponsor: Assistance Publique - Hôpitaux de Paris	EudraCT: 2020-001246-18 NCT04324047  CORIMUNO-19 trial	France	Randomised, open label trial. Moderate, severe or critical COVID-19 N=1000 randomised to sarilumab, tocilizumab, or standard of care.	For patients not requiring ICU: Co Primary Endpoints 1. Survival without needs of ventilator utilization at day 14. 2. Early end point: OMS progression scale $<$ or $=$ 5 at day 4 For patients requiring ICU: Co Primary Endpoints 1. Cumulative incidence of successful tracheal extubation at day 14. 2. Early end point: OMS progression scale $>$ 7 at day 4	Recruiting; March 27, 2021	Medium
Tocilizumab Siltuximab Anakinra	NCT04330638  EudraCT: 2020-001500-41	Belgium	Open label, Prospective, Randomized, Factorial Design, Interventional Study N=342 randomised to Anakinra, Siltuximab, Siltuximab + Anakinra, Tocilizumab, Tocilizumab + Anakinra, or Standard of care	Time to Clinical Improvement	Recruiting; Estimated Primary Completion: September 2020	Medium
Tocilizumab  Sponsor: Fundación SEIMC-GESIDA	2020-001995-13  BREATH-19	Spain	Phase 2, multicentre, single arm, open-label clinical trial to evaluate the effectiveness and safety of intravenous tocilizumab for treating patients with COVID-19 pneumonia  N=500 adult hospitalized subjects diagnosed with COVID-19 pneumonia by RT-PCR	Respiratory function, defined as: - Start date of intubation (in patients not previously initiated). - Date of extubation. - Start date of NIMV and date of independence from NIMV (duration of NIMV). - Start date of oxygen therapy and date of independence from oxygen therapy (duration of oxygen therapy).  Mortality rate.	Ongoing  Estimated Primary Completion Date: 2020-08-21	Low

				End points will be evaluated on a ongoing basis during the clinical trial.		
Tocilizumab Sponsor: Memorial Sloan Kettering Cancer Center	NCT04377659	United States, New York	Phase 2, open-label trial to find out whether the study drug tocilizumab is an effective treatment for COVID-19 infection.  N=40 patient hospitalized with documented severe COVID-19 infection. Patients will be stratified by disease severity. All patients will be treated with tocilizumab.	Progression of respiratory failure or death [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: May 1, 2021	Low
Tocilizumab, Methylprednisolone Sodium Succinate  Sponsor: Hospital Sao Domingos	NCT04377503	Brazil ??	Phase 2, randomized, open-label study to compare the efficacy and safety of tocilizumab versus methylprednisolone in the cytokine release syndrome of patients with COVID-19.  N=40 subjects with COVID-19 diagnosis randomized to Tocilizumab or Methylprednisolone.	Patient clinical status 15 days after randomization [ Time Frame: 15 days after randomization ]	Not yet recruiting  Estimated Primary Completion Date: August 2020	Low
Tocilizumab  Sponsor: Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal	EudraCT number: 2020-002032-69	Spain	A phase 2, randomized, open-label clinical trial to assess the impact of administering two different tocilizumab regimens versus the standard of care  N = 78 patients with non-severe COVID-19 pneumonia	Mean increase in IL-12 levels in the 3 study groups from the start of treatment (D0) to days D+1 and D+3. A mean difference >0.2 units between any of the three study groups will be considered a significant response in terms of IL-12 levels.	Ongoing  Estimated Primary Completion Date: August 5, 2020	Low
Tocilizumab  Sponsor: National Cancer Institute (NCI)	NCT04370834	United States?	A phase 2, open-label, non-randomized trial to assess how well tocilizumab works in reducing the serious symptoms of and preventing future complications in patients with cancer and COVID-19.  N = 200 hospitalized cancer patients with COVID-19	1.Frequency of response [ Time Frame: Up to 1 week ] 2.Length of time from level of care to step down level of care [ Time Frame: Baseline up 1 week ] 3.Survival [ Time Frame: Up to 1 week]	Not yet recruiting  Estimated Study Completion Date: January 1, 2022	Low
Tocilizumab  Sponsor: Instituto Nacional de Cancerología de Mexico	NCT04363853	Mexico	Phase 2, single-arm, open-label, prospective, blinded, clinical trial with Tocilizumab as the sole agent.  N = 200 patients age > 18 confirmed SARS-CoV-2	1.Hematic biometry [Time Frame: 24/48 hours and 7/14 days] 2.Blood chemistry [Time Frame: 24/48 hours and 7/14 days] 3.Blood gas [Time Frame: 24/48 hours and 7/14 days] 4.Hematic biometry [Time Frame: 48/72 hours]	Recruiting  Estimated primary Completion Date: June1, 2020	Low

				5. Blood chemistry [Time Frame: 48/72 hours and 7/14 days]		
Tocilizumab and Deferoxamine Sponsor: Abderrahmane Mami Hospital	NCT04361032 (TRONCHER)	Tunisia	Phase 3, randomized, open-label clinical trial to evaluate the efficacy and safety of tocilizumab compared to deferoxamine  N = 260 COVID-19 (+) patients, hospitalized in intensive care	The mortality rate [ Time Frame: 90 day ]	Not yet recruiting  Estimated Primary Completion Date: Sept 4, 2020	Low
Tocilizumab Sponsor: University Hospital for Infectious Diseases, Croatia	NCT04359667 (UHID-COVID19)	Croatia	A prospective, observational, single center study to assess the role of interleukin-6 and soluble interleukin 6 receptor as predictors of efficacy and safety outcomes in patients with severe coronavirus disease pneumonia treated with tocilizumab  N = 30 patients $\geq 18$ yrs with severe COVID-19 pneumonia	1. Serum interleukin-6 and soluble interleukin-6 receptor as biomarkers of clinical outcomes in patients with severe coronavirus disease (COVID-19) pneumonia treated with tocilizumab at baseline, 24 hours post treatment, 48 hours post treatment, day and day 28.	Recruiting; Estimated Study Completion Date: April 15, 2021	Low
Tocilizumab Sponsor: Azienda Unità Sanitaria Locale Reggio Emilia	NCT04346355	Italy	An open-label randomized multicenter, phase 2 study assessing whether early administration of Tocilizumab compared to late administration of Tocilizumab can reduce the number of patients with COVID-19 pneumonia who require mechanical ventilation.  N = 398	Entry into Intensive Care with invasive mechanical ventilation or death from any cause or clinical aggravation	Recruiting  Estimated primary Completion Date: May 30, 2020	Low
Tocilizumab	NCT04331795	United States, Illinois	Single arm study N=50 hospitalised patients with COVID-19	Clinical response and biological response	Recruiting; Estimated Primary Completion: July 1, 2020	Low
Tocilizumab + ivig (human antibodies?) + CRRT (continuous renal replacement therapy?)	ChiCTR2000030442 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50380">http://www.chictr.org.cn/showproj.aspx?proj=50380</a>	Shaanxi, China	Single arm study of 100 patients with severe covid-19	In hospital time	Not yet recruiting From 2020-03-05 To 2020-05-15	Low
Tocilizumab; Sponsor: Tongji hospital	NCT04306705	Tongji hospital, Hubei, China	A Retrospective Study N=120 with cytokine release syndrome with Serum IL-6 $\geq 3$ times the upper limit of normal treated with Tocilizumab or Continuous Renal Replacement Therapy	Proportion of Participants With Normalization of Fever and Oxygen Saturation Through Day 14	Recruiting;  Estimated primary completion: May 30 2020.	Low

Tocilizumab Sponsor: Università Politecnica delle Marche	NCT04315480	Ancona, AN, Italy	Single arm study N=30 with severe covid-19	Rate of patients with no need in increase of FiO2 to maintain stable SO2 and no need of intubation; improving in pulmonary function [ Time Frame: 7 days]	Active, not recruiting; Estimated primary Completion 09.04.2020	Low
Tocilizumab + Pembrolizumab  Sponsor: Medica Scientia Innovation Research S.L. (MEDSIR)	2020-001160-28  COPERNICO Study	Spain	Phase 2, randomized, controlled, open-label trial to evaluate the efficacy and safety of Tocilizumab + Pembrolizumab  N=24 patients with COVID-19-pneumonia who are nonresponsive to frontline therapy within 48 hours from treatment initiation	Percentage of patients with normalization of SpO2 $\geq$ 96% through day 14 after study treatment initiation	Ongoing  Start date: 2020-04-09  Estimate of duration: 90 days	Low
Tocilizumab vs Methylprednisolon	NCT04345445	Hospital Sungai Buloh, Hospital Kuala Lumpur and Hospital Tuanku Jaafar, Malaysia	Open-label, Randomized, Interventional Study to Evaluate the Efficacy and Safety of Tocilizumab Versus Corticosteroids in Hospitalised COVID-19 Patients With High Risk of Progression. N=310 randomised to tocilizumab or methylprednisolon	The proportion of patients requiring mechanical ventilation [ Time Frame: Through study completion, and average of 6 months ] Mean days of ventilation [ Time Frame: Through study completion, and average of 6 months ]	Not yet recruiting; Estimated Primary Completion: October 31, 2020	Low
Tocilizumab	NCT04332913	Italy	This is a prospective observational clinical study  N=30	Percentage of patients with complete recovery defined as fever disappearance and return to normal SpO2 after 14 days from the end of treatment with tocilizumab.	Not yet recruiting; Estimated Primary Completion; December 31, 2020	Low
Chloroquine Analog (GNS561), an Anti PD-1 (Nivolumab) and an Anti-interleukine-6 Receptor (Tocilizumab)	NCT04333914	Lyon, Rhône, France	A Prospective, Controlled, Randomized, open label, Multicenter Study to Compare the Efficacy of a Chloroquine Analog (GNS561), an Anti PD-1 (Nivolumab) and an Anti-interleukine-6 Receptor (Tocilizumab) Versus Standard of Care in Patients With Advanced or Metastatic Cancer and SARS-CoV-2 (COVID-19) Infection N=273 divided into two cohorts: COHORT 1 (mild symptoms or asymptomatic): GNS561 vs anti-PD1 vs standard of care (randomization ratio 1:1:1). COHORT 2 (moderate/severe symptoms): GNS561 vs anti-IL6 vs standard of care (randomization ratio 1:1:1).	28-day survival rate	Not yet recruiting; Estimated study completion June 2020	Medium

Nivolumab Sponsor: Dr Gerry Gin Wai Kwok	NCT04356508	Hong Kong?	A phase 2, open-label, non-randomized, single-centre pilot study of nivolumab to evaluate efficacy of anti-PD1 antibody in relation to viral clearance and its safety.  N = 15 adult patients with COVID-19. 2:1 receiving Nivolumab or best supportive care only	Viral clearance kinetics [ Time Frame: From diagnosis to recovery, assessed up to 6 months ]	Not yet recruiting  Estimated Primary Completion Date: June 20 2020	Low
Nivolumab Sponsor: Hospices Civils de Lyon.	NCT04413838	France	Phase 2 Patient's clinical state [ Time Frame: 15 days after randomization ]  N=120 age 18-70 with COVID-19 hospitalized and obese.  Randomized controlled therapeutic trial, using an add-on strategy to usual standard of care	Patient's clinical state [ Time Frame: 15 days after randomization ]	Not yet recruiting  Estimated Primary Completion Date: June 15, 2021.	Low

## Sarilumab (Kevzara)

Binds to both soluble and membrane-bound IL-6 receptors (IL-6R $\alpha$ ), and inhibits IL-6-mediated signaling. Licensed for rheumatoid arthritis.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Sarilumab Sponsor: Regeneron + Sanofi	NCT04315298	USA Multicentre	RCT, double-blind, placebo-controlled, on top of supportive care. Ph2 Ph3 (adaptive, depends on Ph2 results) N=400 Adults hospitalized with serious complications from COVID-19	Ph2: fever, O2 need Ph3: long-term outcomes (e.g. death, hospitalisation, ventilation, O2 supply etc)	Recruiting – March 2020 Estimated completion 09 March 2021  Update: phase 2 has been stopped and phase 3 continues	High
Sarilumab Sponsor: Sanofi	EudraCT nr.: 2020-001162-12 Sarilumab COVID-19 Protocol number: EFC16844	Canada France Germany Israel Italy Japan Russian Federation Spain	An adaptive phase 2/3, randomized, double-blind, placebo-controlled study assessing efficacy and safety of sarilumab for hospitalized patients with COVID-19 (Sarilumab COVID-19). Phase 2 n= 100 Phase 3 n= 200	Ph2: resolution of fever or discharge Ph3: adaptive design. PEP depends on Ph2 results.	Ongoing	High

Sarilumab	NCT04327388  Same as EudraCT nr.: 2020-001162-12?	France	An Adaptive Phase 2/3, Randomized, Double-blind, Placebo Controlled Study Assessing Efficacy and Safety of Sarilumab for Hospitalized Patients With COVID19 N=300,	Time to resolution of fever for at least 48 hours without antipyretics or until discharge,  Phase 3: The percentage of patients reporting each severity rating on the 7-point ordinal scale [ Time Frame: Baseline to Day 15	Recruiting; Estimated Primary Completion: July 1, 2020	High
Sarilumab IL-6 inhibitor Licensed for rheumatoid arthritis	EudraCT number: 2020-001390-76  Phase III	Italy  Lead center INMI "L. Spallanzani" - Roma	Randomized Controlled Trial, multi-center	Endpoint primario: L'endpoint primario dello studio e il tempo al miglioramento clinico, definito come il tempo intercorso tra la prima dose del farmaco al miglioramento di due punti (rispetto al baseline) in una scala ordinale a 7 punti. La scala ordinale a 7 punti consiste delle seguenti categorie: 1. non ospedalizzato con la ripresa delle normali attività; 2. non ospedalizzato ma incapace di riprendere le normali attività; 3. ospedalizzato, senza richiedere supplemento di ossigeno; 4. ospedalizzato, con necessita di supplemento di ossigeno; 5. ospedalizzato, con necessita di ventilazione meccanica non invasiva (cPAP o NIV); 6. ospedalizzato, con necessita di ossigenazione extracorporea a membrana (ECMO) o ventilazione meccanica invasiva o entrambe; 7. morte.	Clinical Trial Application approved by Italian competent authority AIFA 28 April 2020	High
Sarilumab  Sponsor: Cristina Avendaño Sola	2020-002037-15	Spain	Phase 2, multicenter, randomized, open-label study to evaluate the efficacy and safety of Standard of care + Sarilumab vs. Standard of care for the early treatment of COVID-19-pneumonia in hospitalized patients.  N=200 randomized to standard of care + Sarilumab or standard of care only	The primary endpoint is the proportion of patients progressing to severe respiratory failure (Brescia-COVID Scale $\geq 2$ ), ICU admission, or death. [Time frame: From baseline up to Day-15]	Ongoing  Estimated Primary Completion Date: 2021-04-26	Medium

Sarilumab (Kevzara)  Sponsor: Consorci Parc de Salut Mar (PSMAR)	2020-001290-74	Spain	Phase 3, open-label, controlled, randomized trial on the efficacy of Sarilumab in the early treatment of hospitalized patients with mild to moderate COVID-19 pneumonia  N=216, randomized to Sarilumab added to standard treatment or standard treatment alone	Time to clinical improvement, defined as the time from randomization to a two-point improvement (from randomization status) on an ordinal scale of seven categories or hospital discharge, whichever occurs first  [Time frame: 28 days]	Ongoing  Start date: 2020-04-11  Estimate of duration: 4 months	Medium
Sarilumab (Kevzara)  Maimónides Biomedical Research Institute of Córdoba	NCT04357860	Spain	Phase 2, open-label, randomized trial on the use of Sarilumab in Adults Hospitalized With COVID-19 Presenting Cytokine Release Syndrome  N = 120, age ≥ 18 and < 75 Arm 1: Sarilumab 200 mg for 14 days Arm 2: Sarilumab 400 mg for 14 days Arm 3: best available treatment for 14 days	Ventilation requirements [Time Frame: At day 28 or when the subject is discharged (whichever occurs first)]	Not yet recruiting  Estimated Study Completion Date: July 27, 2020	Medium
Sarilumab vs standard of care  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04324073 CORIMUNO-19 - SARI	France	Bayesian open labelled randomized clinical trial N=240 patients with moderate or severe COVID-19 randomised to sarilumab or standard of care	Survival without needs of ventilator utilization at day 14; WHO progression scale ≤5 at day 4; Cumulative incidence of successful tracheal extubation; WHO progression scale ≤7 at day 4	Recruiting; Estimated Primary Completion: March 27, 2021	Medium
Sarilumab  Sponsor: ASST Fatebenefratelli Sacco	NCT04386239  COVID-SARI-001	Not stated	Early Phase 1, single assignment, pilot study on the use of Sarilumab in patients with COVID-19 infection.  N=40 subjects age ≥ 18 years and < 85 years, documented severe interstitial pneumonia with respiratory failure with positive Covid-19 test.	Proportion of patients who show an improvement of the respiratory function [ Time Frame: 6 weeks ]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Low
Sarilumab IL-6 inhibitor Licensed for rheumatoid arthritis	EudraCT number: 2020-001745-40  Pilot study on the use of sarilumab in patients with covid-19 infection	Italy  Lead center INMI "L. Spallanzani" – Roma	This is an open-label, single arm, dose-escalation design, single center study	Proportion of patients who show an improvement of the respiratory function, described as ≥30% decrease in oxygen requirement compared to baseline (as defined as the ratio of O2 flow through the Venturi mask).	Clinical Trial Application approved by Italian competent authority AIFA 26 March 2020	Low
Sarilumab  Sponsor: Maria del Rosario Garcia de Vicuña Pinedo	NCT04357808  (SARCOVID)	Spain	Phase 2, randomised, open-label, single-center, comparative trial of sarilumab plus standard of care vs. standard of care in a 2:1 ratio	Mean change in clinical status assessment using the 7-point ordinal scale at day 7 after randomisation [ Time Frame: 7 days from enrolment ]	Recruiting  Estimated Study Completion Date: June 2020	Low

			N = 30 hospitalised patients with moderate to early severe COVID-19 infection			
Sarilumab	NCT04359901	United States, Massachusetts	Phase 2, open-label, randomized, two-arm trial comparing standard care alone to standard care with addition of sarilumab (anti-IL6R).  N = 120 patients with COVID-19 infection of moderate severity.	Intubation or death [ Time Frame: within 14 Days of enrollment ]	Recruiting  Estimated Study Completion Date: April 10, 2023	Low
Sarilumab Fundación para la Investigación Biomédica de Córdoba	2020-001531-27S	Spain	Randomized, open label trial in adults hospitalized with COVID-19 presenting cytokine release syndrome. 3-arm study N=120 patients randomized to sarilumab sarilumab 200 mg, 400 mg or Best available therapy	Proportion of patients requiring or time (in days) until required: - High flow nasal oxygenation (HFNO) - Non-invasive mechanical ventilation type BiPAP - Non-invasive mechanical ventilation type CPAP - Invasive mechanical ventilation	Ongoing by 28.04.2020. Estimated study duration: 6 months	Low
Sarilumab  Sponsor: Rosario García de Vicuña	2020-001634-36 SARCOVID	Spain	Phase 2, randomized, open, 2-armed, single-site pilot study.  N= 30 patients with moderate-severe COVID-19 infection	- Time to become afebrile for a minimum period of 48 hours, without antipyretics - Average change in the ordinal scale of 7 points from the inclusion in the study until day 7 (after randomization): Time Frame: 1 month	Ongoing  Start date: 2020-04-09  Estimate of duration: 2 months	Low

### Siltuximab (Sylvant)

Siltuximab prevents the binding of human IL-6 to both soluble and membrane-bound IL-6 receptors (IL-6R), thus inhibiting the formation of the hexameric signaling complex with gp130 on the cell surface.

Siltuximab is indicated for the treatment of adult patients with multicentric Castleman's disease (MCD) who are HIV negative and human herpesvirus-8 (HHV-8) negative.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Siltuximab vs Methylprednisolone  Sponsor: Fundació Clínic per a la Recerca Biomèdica	NCT04329650  EudraCT number: 2020-001413-20	Barcelona, Spain	Phase 2, Randomized, Open-label Study to Compare Efficacy and Safety of Siltuximab vs. Corticosteroids in Hospitalized Patients With COVID19 Pneumonia N=100	Proportion of patients requiring ICU admission at any time within the study period. [ Time Frame: 29 days ]	Not yet recruiting; Estimated Primary Completion: May 20, 2020	Medium

Siltuximab (Sylvant) Sponsor: EUSA Pharma	NCT04322188	Italy, Bergamo	Retrospective case-control study (compassionate use vs matched controls) N=50	Reduction in the need of invasive ventilation, time spent in ICU or 30-day mortality	Recruiting; Estimated Primary Completion: May 19, 2020	Low
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### Bevacizumab (Avastin)

Bevacizumab binds to vascular endothelial growth factor (VEGF), the key driver of vasculogenesis and angiogenesis, and thereby inhibits the binding of VEGF to its receptors, Flt-1 (VEGFR-1) and KDR (VEGFR-2), on the surface of endothelial cells. Lisenced.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Bevacizumab; Sponsor: Qilu Hospital of Shandong University	NCT04305106	China, Shandong	Double blinded multicentre randomised controlled trial N=118 Severe or Critical Patients With COVID-19 Randomised to bevacizumab. No comparator	Proportion of patients whose oxygenation index increased by 100mmhg on the 7th day after admission [ Time Frame: On the 7th day after admission ]	Not yet recruiting: Estimated study completion: May 31, 2020	Medium
Bevacizumab Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04344782 CORIMMUNO-BEVA	Not stated – France??	Phase 2, randomized, open-label, controlled trial.  N=130 hospitalized COVID-19 patients randomized to Bevacizumab Injection or standard of care.	Proportion of surviving patients without need for intubation for respiratory support [ Time Frame: day 14 ]	Not yet recruiting (estimated study start April 15, 2020)  Estimated Primary Completion Date: September 30, 2020	Medium
Bevacizumab; Approved for certain cancers; Sponsor: Qilu Hospital of Shandong University	NCT04275414	China, Shandong	Phase 2/3 single group assignment  N=20 severe and critical COVID-19 patients	Partial arterial oxygen pressure at 24 hours, 72 hours and 7 days	Recruiting;  Estimated primary completion: April 2020	Low
Bevacizumab Sponsor: Fundación para la Investigación Biomédica de Córdoba	2020-001541-39	Spain	Phase 2 open-label pilot study of bevacizumab as a treatment for respiratory distress in patients with COVID-19.  N = 22 patients age > 18 to 25 mg/ml single-dose bevacizumab.	To evaluate the crude mortality rate at 28 days	Ongoing  Estimated duration of the trial: 6 months	Low

### Other monoclonal antibodies

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Gamifant (emapalumab) - (IFN $\gamma$ ) blocking antibody - FDA approved for primary	Eudra-CT: 2020-001167-93 NCT04324021	Italy	Randomized, Open-label, Parallel Group, 3-arm, Multicenter Study N = 54	Treatment success [ Time Frame: Up to Day 15 ]	Recruiting; Estimated primary completion July 2020	High

haemophagocytic lymphohistiocytosis (HLH). Kineret (anakinra) – IL-1 receptor antagonist FDA + EMA approved for CAPS, Still's disease, FMF, RA	Sobi.IMMUNO-101		Active: Emapalumb (n=18) Active: Anakinra (n=18) Comparator: SOC (n=18) Adult COVID-19 with respiratory distress	Defined as the proportion of patients not requiring invasive mechanical ventilation or Extracorporeal membrane oxygenation (ECMO)		
Gimsilumab is a fully human monoclonal antibody targeting GM-CSF. Granulocyte macrophage-colony stimulating factor (GM-CSF), a myelopoietic growth factor and pro-inflammatory cytokine, is believed to be a key driver of lung hyper-inflammation and to operate upstream of other pro-inflammatory cytokines and chemokines. Sponsor: Kinevant Sciences GmbH Not licensed.	NCT04351243	USA, New York + Philadelphia	Randomized, double-blind, placebo controlled High dose of gimsilumab on Day 1 and a low dose of gimsilumab on Day 8, or matching placebo (saline solution) Estimated enrolment: 270 Study population: Subjects With Lung Injury or Acute Respiratory Distress Syndrome Secondary to COVID19	Primary endpoint: Incidence of mortality by Day 43 Secondary endpoints: ventilator requirements, need for ICU level of care, duration of hospitalization	Recruiting. Estimated primary completion July 2020	High
IFX-1, monoclonal antibody which specifically binds to the soluble human complement split product C5a. Sponsor: InflaRx GmbH Not approved.	EudraCT Number: 2020-001335-28 ClinicalTrials.gov Identifier: NCT04333420	NL	A pragmatic adaptive open label, randomized Phase II/III multicenter study of IFX-1 in Patients with severe COVID-19 Pneumonia - "PANAMO" N=130 BSC + IFX-1 vs BSC	Change in PaO2/FiO2 [ Time Frame: Baseline to Day 5	Recruiting Estimated Primary Completion: October 31, 2020	High
Leronlimab, PRO140. CCR5 antagonist Not yet licensed, but several completed or ongoing CT in patients with HIV or triple-negative breast cancer.	NCT04347239 <a href="https://www.clinicaltrials.gov/ct2/show/study/NCT04347239">https://www.clinicaltrials.gov/ct2/show/study/NCT04347239</a> <a href="https://www.cytodyn.com/newsroom/press-releases/2020/06/01/cytodyn-announces-approval-of-leronlimab-for-the-treatment-of-cancer-patients/">https://www.cytodyn.com/newsroom/press-releases/2020/06/01/cytodyn-announces-approval-of-leronlimab-for-the-treatment-of-cancer-patients/</a>	US	A Phase 2b/3, Randomized, Double Blind, Placebo Controlled, Adaptive Design Study. N= 390 severely or critically ill patients.  Randomised to leronlimab or placebo for two weeks. The trial is following the former phase 2 study in critically ill patients. This study was conducted in NY.	Mortality rate at day 14.	Recruiting; Estimated Primary Completion: December 31, 2020 Interim analysis will be performed on the data from the first 50 patients following two weeks of leronlimab therapy Phase 2 study included 10 and 8 of them demonstrated significant	High

	<a href="#">releases/detail/405/treatment-with-cytodyns-leronlimab-indicates-significant</a>  <a href="https://apnews.com/Globe%20NewsWire/9a363c78ce9b4a8300522870891c012e">https://apnews.com/Globe%20NewsWire/9a363c78ce9b4a8300522870891c012e</a>				improvement after three days in several important immunologic biomarkers (cytokines, IL-6, and a trend toward normalization of the CD4/CD8 ratio)	
Leronlimab (PRO 140) Sponsor: CytoDyn, Inc.	NCT04343651	United States	Phase 2, two-arm, randomized, double blind, placebo controlled multicenter study to evaluate safety and efficacy of leronlimab (PRO 140) in patients with mild-to-moderate symptoms of respiratory illness caused by coronavirus 2019 infection. N = 75, subjects aged 18 to 99 years with mild-to-moderate symptoms of respiratory illness caused by coronavirus 2019 infection.	Clinical Improvement as assessed by change in total symptom score (for fever, myalgia, dyspnea and cough) [ Time Frame: Day 14 ]	Recruiting.  Estimated Primary Completion Date: 04 December 2020.	High
LY3127804  A selective monoclonal antibody against Angiotensin 2 (Ang2)  Sponsor: Eli Lilly and Company	NCT04342897	United States, Europe	Phase 2, double-blinded, placebo-controlled, randomized clinical trial of treatment with LY3127804  N=200, patients hospitalized with pneumonia and presumed or confirmed COVID-19  Randomized to IV LY3127804 or IV placebo	Number of Ventilator Free Days [ Time Frame: Day 1 to Day 28 ]	Recruiting  Estimated Primary Completion Date: June 12, 2020	High
Lenzilumab; Not licensed.  A humanized monoclonal antibody (class IgG1 kappa) that targets colony stimulating factor / granulocyte-macrophage colony stimulating factor. Originally designed for the treatment of chronic myelomonocytic leukemia (CMML) and juvenile myelomonocytic leukemia (JMML). Sponsor:	NCT04351152	US, multicentre	A Phase 3 Randomized, double-blind Placebo-Controlled Study. N=238 hospitalised patients with COVID-19 randomised to lenzilumab or placebo.  An interim analysis is planned for DSMB to assess safety & efficacy data	Incidence of invasive mechanical ventilation (IMV) and/or Mortality [ Time Frame: Up to 28 days ]	Recruiting; Estimated Primary Completion; September 2020	High

Humanigen, Inc.						
Levilimab Sponsor: Biocad	NCT04397562	Russian Federation	A phase 3 multicenter, randomized, double-blind, placebo-controlled clinical trial of the efficacy and safety of Levilimab (BCD-089).  N = 204 patients with severe COVID-19	Mortality rate [ Time Frame: Day 30 ]	Recruiting  Estimated Primary Completion Date: April 2021	High
Canakinumab Sponsor: Novartis Pharmaceuticals	NCT04362813  2020-001370-30  (CAN-COVID)	France Germany Italy Spain United Kingdom United States	A phase 3, multicenter, randomized, double-blind, placebo-controlled study to assess the efficacy and safety of canakinumab plus standard-of-care (SOC) compared with placebo plus SOC  N = 450 adult patients with COVID-19-induced pneumonia and cytokine release syndrome (CRS).	Number of patients with clinical response [ Time Frame: Day 3 to Day 29 ]	Not yet recruiting  Estimated primary Completion: October 5, 2020	High
Sirukumab Sponsor: Janssen Pharmaceutica N.V., Belgium	NCT04380961	United States (multiple sites)	Phase 2, randomized, double-blind, placebo-controlled study to evaluate the clinical response of sirukumab plus standard of care in COVID-19.  N=270 hospitalized subjects with laboratory-confirmed SARS-CoV-2 randomized to Sirukumab (5 mg/kg IV single dose infusion) + standard of care or placebo + standard of care.	Time to Improvement of at Least 2 Categories Relative to Baseline on the 6-Point Ordinal Clinical Recovery Scale [ Time Frame: Up to Day 28 ]	Recruiting  Estimated Primary Completion Date: June 25, 2020	High
Adalimumab	ChiCTR2000030089 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49889">http://www.chictr.org.cn/showproj.aspx?proj=49889</a>	Shanghai, China	A randomized, open-label, controlled trial N= patients with severe or critical covid-19	TTCI (Time to Clinical Improvement)	Not yet recruiting;  From 2020-02-28 To 2020-08-31	Low
Avdoralimab (Anti-C5aR Antibody)  Not licensed Sponsor: Assistance Publique Hopitaux De Marseille	NCT04371367	France	A phase 2, randomized, double-blinded, placebo-controlled clinical trial to evaluate Avdoralimab .  N = 108 COVID-19 patients with severe pneumonia	1.Number of patients alive and no longer hospitalized at D14 2.Number of ventilator-free days at Day 28 (VFD28)	Recruiting  Estimated Study Completion Date: October 27, 2020	Medium

SNDX-6352 (axatilimab)  Sponsor: Syndax Pharmaceuticals	NCT04415073	United States	Phase 2 Randomized, Double-blind, Placebo-controlled.  N=186 adults hospitalized and confirmed COVID-19 randomized 1:1 to axatilimab or matching placebo as an add-on to SOC.	Proportion of subjects alive and free of respiratory failure [ Time Frame: 29 Days ]	Recruiting Estimated Primary Completion Date: November 15, 2020	High
Canakinumab  Sponsor: The Cleveland Clinic	NCT04365153	United States, Ohio	A phase 2, quadruple-blinded, randomized controlled study to demonstrate as a proof of concept that early treatment with canakinumab prevents progressive heart and respiratory failure in patients with COVID-19 infection  N = 45 patients randomized using a 1:1:1 allocation ratio: 15 subjects will receive 600 mg intravenous canakinumab, 15 subjects will receive 300 mg intravenous canakinumab, and 15 patients will receive placebo infusion.	Time to clinical improvement up to day 14, defined as the time in days from randomization to either an improvement of two points on a seven-category ordinal scale or discharge from the hospital, whichever occurs first. [ Time Frame: Up to day 14 ]	Recruiting  Estimated Study Completion Date: December 31, 2020	Medium
Canakinumab  Sponsor: AUSL Romagna Rimini	NCT04348448	Not stated	Cohort, retrospective and prospective observational study on the use of Canakinumab.  N = 100 patients treated with canakinumab administered subcutaneously	Intensive care treatment [ Time Frame: 9 months ]	Not yet recruiting  Estimated primary Completion Date: July 2020	Low
Clazakizumab  Sponsor: Johns Hopkins University	NCT04363502	Not stated	Phase 2 randomized, double-blind, placebo-controlled clinical trial for the Use of the IL-6 Inhibitor Clazakizumab in Patients With Life-threatening COVID-19 Infection.  N = 30 patients randomly assigned in a 1:1:1 ratio to three study arms that will receive clazakizumab at a dose of 12.5 mg, 25 mg or placebo.	Change in C-reactive protein (CRP) level [Time Frame: Up to 3 days]	Not yet recruiting  Estimated study completion date: July 2020	Medium
Clazakizumab  Investigational drug, monoclonal antibody against interleukin-6	NCT04343989	United States, New York	Phase 2, double-blinded, placebo-controlled, randomized study on the use of IL-6 Inhibitor Clazakizumab in Patients With Life-threatening COVID-19 Infection	Primary: Incidence of serious adverse events associated with clazakizumab or placebo [Time Frame: 60 days]  Secondary: Intubation, extubation, length of ICU stay, survival	Recruiting  Estimated Primary Completion Date: July 1, 2020	Medium

Sponsor: NYU Langone Health			N=90, randomized 1:1:1 to clazakizumab 12,5 mg clazakizumab 25 mg or placebo			
Clazakizumab Sponsor: Cedars-Sinai Medical Center	NCT04348500	United States	Phase 2, Parallel, Randomized, Blinded clinical trial to Evaluate the Safety and Tolerability of Clazakizumab compared to placebo.  N = 60 patients age > 18 hospitalized with PCR confirmed COVID-19 to receive 25 mg in 50 cc NS given by IV infusion x 1 dose or placebo.	Incidence of need for mechanical ventilation and/or ECMO at 14 days after the first administered dose in comparison to placebo	Not yet recruiting Estimated Study Completion Date: March 31, 2021	Medium
Clazakizumab Sponsor: Columbia University	NCT04381052	United States, New York	A phase 2, randomized, double-blinded, placebo-controlled safety and dose-finding study for the use of the IL-6 inhibitor clazakizumab.  N = 30 patients with life-threatening COVID-19 infection randomized 1:1 to two study arms that will receive clazakizumab or placebo	Cumulative incidence of serious adverse events associated with clazakizumab or placebo [ Time Frame: 60 days ]	Not yet recruiting Estimated Primary Completion Date: August 1, 2020	Medium
Eculizumab (Soliris); Modulation of the complement system; Sponsor: Hudson Medical  Expanded access	NCT04288713	US?	Expanded access. The drug is being used in a protocol for the treatment of covid-19. Awaits FDA approval.	Not applicable	Not Applicable	Medium
Eculizumab (Soliris)  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04346797	France	Phase 2, Bayesian, open-label, randomized trial on the efficacy and safety of Eculizumab in patients with Covid-19 infection  N=120, age>18, with moderate, severe pneumonia or critical pneumonia due to Covid-19 Randomized to IV Eculizumab treatment or standard of care	Survival without needs of intubation at day 14 (Survival without needs of intubation, events considered are intubation or death)  Change in organ failure at day 3	Recruiting Estimated Primary Completion Date: Sept 2020	Medium
Eculizumab Sponsor: Alexion Pharmaceuticals	NCT04355494	France	Expanded Access to patients with confirmed diagnosis of SARS-CoV-2 infection presenting as severe COVID-19 requiring hospitalization.	Not applicable	Available	Low

Mavrilimumab Not approved drug. Under development for rheumatoid arthritis	NCT04337216	United States, Virginia	Open label single arm study. N=10 patients with severe COVID-19 and systemic hyper-inflammation	Time to resolution of fever [ Time Frame: Up to 28 days ]	Not yet recruiting; Estimated Primary Completion: July 2020	Low
IC14 (monoclonal antibody against CD14)  Sponsor: Implicit Bioscience	NCT04346277	Italy	Compassionate use open label program in patients hospitalized with pulmonary complications of SARS-CoV-2 infection who will receive IC14		Available	Low
Product: Mavrilimumab  Sponsor: IRCCS Ospedale San Raffaele – Milano Prof. Lorenzo Dagna	EudraCT number: 2020-001795-15  NCT04397497  COMBAT-19	Italy	Phase 2 A randomized, double-blind, placebo- controlled trial of Mavrilimumab for Acute respiratory failure due To COVID- 19 pneumonia with hyperinflammation: the COMBAT-19 trial Patients will be randomized in a 1:1 ratio to either mavrilimumab + standard of care or placebo + standard of care  N= 50 patients with COVID-19-induced pneumonia and systemic hyperinflammation  Patients in the mavrilimumab arm will be dosed on Day 1 with a dose of 6 mg/kg (using a solution with a final concentration of mavrilimumab of 50 mg/mL) infused IV over approximately 1 hour.	Primary objective: To demonstrate the benefit of mavrilimumab vs placebo added to best SOC in reducing the dependency on oxygen supplementation in patients with COVID-19 pneumonia and signs of systemic hyperinflammation  Primary endpoint: Time to the absence of need for oxygen supplementation (time to first period of 24 hrs with a SpO2 of 94%) within day 14 of treatment, stated as Kaplan- Mayer estimates of the proportion of patients on room air at day 14 and median time to room air attainment in each arm.	Recruiting  Estimated primary completion September 22, 2020	High
IL-2 (ILT101)  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04357444	France, Paris	Phase 2, double-blinded, placebo- controlled, randomized trial on the use of a Low Dose of IL-2 In Acute Respiratory Distress Syndrome Related to COVID-19  N = 30, age ≥ 18, intubated, with confirmed Covid-19 infection, randomized to IL-2 injections or placebo injections	The PaO2/FiO2 ratio at D7 [Time Frame: at Day7]	Not yet recruiting  Estimated Primary Completion: July 2020	Medium

Ixekizumab and antiviral therapy  Sponsor: Xiangya Hospital of Central South University	ChiCTR2000030703	China, Hunan  City: Changsha Chasha	A randomized, blinded, controlled, multicenter clinical trial.  The trial is divided into two phases:  First stage N=3 COVID-19 patients treated with Ixekizumab plus antiviral therapy ( $\alpha$ -interferon nebulized inhalation, lopinavir / ritonavir, chloroquine, Ribavirin, Abidol, but no more than 3). The safety and efficacy were initially observed for 7 days. 2.  Second stage N=40 COVID-19 patients randomized 1:1 to Ixekizumab + antiviral therapy ( $\alpha$ -interferon nebulization inhalation, lopinavir / ritonavir, chloroquine, ribavirin, abidol, but no more than 3) OR control group antiviral therapy ( $\alpha$ -interferon nebulized inhalation, lopinavir / ritonavir, chloroquine, ribavirin, abidol, but no more than 3).  If the efficacy of the experimental group significantly exceeds that of the control group, the sample size of the two groups will be adjusted or the trial will be terminated in advance.	Lung CT [Time frame: Days 7 and 14]	Recruiting  Study execute time: 2020-03-10 to 2020-05-31	Medium
Meplazumab; Sponsor: Tang-Du Hospital Meplazumab is not approved. Considered a Chinese drug in development	NCT04275245	China, Shaanxi	Phase 1/2 Open label, single arm N=20 with pneumonia	Virological clearance rate (time frame 14 days)	Recruiting; Estimated study completion: Dec 31, 2020	Low
Nivolumab  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04343144  CORIMUNO-NIVO	France	Phase 2, open-label, randomized, multicenter trial.  N=92 hospitalized COVID-19 patients randomized 1:1 to nivolumab (3mg/kg on day 1) or standard of care.	Time to clinical improvement [ Time Frame: day 14 ]	Not yet recruiting  Estimated Primary Completion Date: July 31, 2020	Low

<p>Olokizumab (OKZ), RPH-104</p> <p>(IL6 inhibitor – not licensed)</p> <p>Sponsor: R-Pharm International, LLC</p>	<p>NCT04380519</p>	<p>Russia</p>	<p>An International, multicenter, randomized, double-blind, adaptive placebo-controlled study of the efficacy and safety of a single administration of Olokizumab and RPH-104 with standard therapy in patients with severe SARS-CoV-2 Infection.</p> <p>N=372 subjects with laboratory-confirmed SARS-CoV-2 infection and COVID-associated respiratory syndromes or bilateral changes in the lungs typical for COVID-19, based on chest computed tomography results.</p> <p>Pilot phase (n=189): randomized 1:1:1 to OKZ or RPH-104 or placebo. Early safety and efficacy analysis will be performed based on the results obtained in the pilot period to adjust sample size.</p> <p>Core phase (n= maximal 372): randomized 1:1:1 to OKZ or RPH-104 or placebo</p>	<p>Proportion of patients, responded to the study therapy, in each of the treatment groups [ Time Frame: Day 15 ]</p>	<p>Recruiting</p> <p>Estimated Primary Completion Date: October 15, 2020</p>	<p>Medium</p>
<p>PD-1 monoclonal antibody</p>	<p>ChiCTR2000030028 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49840">http://www.chictr.org.cn/showproj.aspx?proj=49840</a></p>	<p>Hubei, China</p>	<p>Prospective comparative study in severe and critical patients with covid-19.</p> <p>N=20: PD-1 mAb N=20: standard treatment</p>	<p>Several primary outcomes.</p>	<p>Not yet recruiting.</p> <p>From 2020-02-24 To 2020-08-31</p>	<p>Low</p>
<p>Ravulizumab</p> <p>Sponsor: Alexion Pharmaceuticals</p>	<p>NCT04369469</p>	<p>Not stated</p>	<p>Phase 3, open-label, randomized, controlled study to evaluate the efficacy and safety of intravenously administered Ravulizumab compared with best supportive care in patients with COVID-19 severe pneumonia, acute lung injury or acute respiratory distress syndrome.</p> <p>N=270 subjects ≥ 18 years of age and ≥ 40 kg, confirmed diagnosis of SARS-CoV-2 infection presenting as severe COVID-19 requiring hospitalization. Randomized to Ravulizumab + Best Supportive Care or Best Supportive Care</p>	<p>Survival (based on all-cause mortality) at Day 29 [ Time Frame: Baseline, Day 29 ]</p>	<p>Not yet recruiting</p> <p>Estimated Study Completion Date: February 2021</p>	<p>Medium</p>

Tozumab + adamumab (adalimumab?)	ChiCTR2000030580 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50693">http://www.chictr.org.cn/showproj.aspx?proj=50693</a>	Hubei, China	Parallel intervention study, N=60 patients with severe or critical covid-19 randomised to tozumab + adamumab	Several primary outcomes: chest CT, coronavirus detection, IL6 etc.	Recruiting;  From 2020-02-01 To 2020-04-30	Low
TJ003234 (Anti-GM-CSF Monoclonal Antibody)  Sponsor: I-Mab Biopharma Co. Ltd	NCT04341116	USA, multicenter	Phase 1b/2, randomized, double-blind, placebo-controlled, multi-center trial.  N= 144 patients with severe COVID-19 under supportive care randomized to TJ003234 3 mg/kg or TJ003234 6 mg/kg or placebo.	1. Proportion (%) of subjects experiencing deterioration in clinical status [ Time Frame: Changes from baseline on Day 14 ]  2. Treatment Emergent Adverse Events [ Time Frame: Up to 30 days after drug administration ]	Recruiting  Estimated Primary Completion Date: September 2020	Medium
vMIP viral macrophage inflammatory protein, chemokine; Sponsor: Union Hospital, Tongji Medical College, Huazhong University of Science and Technology	ChiCTR2000029636  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49215">http://www.chictr.org.cn/showproj.aspx?proj=49215</a>	Hubei, China	Single arm, case series.  Moderate or severe covid-19	2019-nCoV nucleic acid turning negative time (from respiratory secretion), or the time to release isolation	Recruiting;  From 2020-02-07 To 2020-07-3	Low

## Interferons

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
IFN beta-1a Traumakine Licensed for ARDS  + convalescent plasma	NCT02735707  REMAP-CAP link <a href="https://www.remapcap.org">https://www.remapcap.org</a> The trial protocol: <a href="https://www.remapcap.org/protocol-documents">https://www.remapcap.org/protocol-documents</a>  REMAP-CAP: Randomized, Embedded, Multifactorial Adaptive Platform trial for Community-Acquired Pneumonia	Study sites across Asia-Pacific, Europe and North America excluding US.	Platform trial, adding IFN beta-1a Traumakine to immune-modulatory treatments domain. N=7100 patients with community-acquired pneumonia, including COVID-19 patients, who require ICU care for the support of organ functions Intervention: IV IFN beta-1a, hydrocortisone treatments, and other study treatment options.	The primary endpoint for all domains will be all-cause mortality at 90 days	Recruiting;  Estimated Primary Completion: December 2021  REMAP-CAP is ongoing IFN beta-1a Traumakine treatment not yet recruiting	High
Interferon Beta 1a  SNG001 is an inhaled formulation of interferon-beta-1a	EudraCT: 2020-001023-14	UK, at leading NHS respiratory medicine centres.	Phase 2 Randomised, double-blind, placebo-controlled trial. Pilot phase with 100 COVID-19 patients In total 400 patients	Change in condition measured using the Ordinal Scale for Clinical Improvement during the dosing period.	Ongoing  Estimated study completion: May 2021	High

Not licensed Sponsor: Synairgen Research Limited			Recruitment via WHO webpage.	The Ordinal Scale for Clinical Improvement is a World Health Organisation recommended scale for use in COVID-19 trials.		
Interferon beta 1a (SNG001)  Sponsor: Synairgen Research Ltd.	NCT04385095	United Kingdom: Belfast, Birmingham, Bradford, Hull, Leicester, Manchester, Nottingham, Oxford, Southampton	Phase 2, double-blinded, placebo-controlled, randomized trial on the efficacy of inhaled SNG001 (IFN-β1a for Nebulisation) for Covid-19 infection  N = 400, with Covid-19 infection randomized to SNG001 or placebo	Ordinal Scale for Clinical Improvement [Time Frame: Day 1 to day 28]	Recruiting  Estimated Primary Completion Date: August 31, 2020	High
Peginterferon Lambda-1A  Sponsor: University Health Network, Toronto	NCT04354259	Canada, Ontario	Phase 2, randomized, controlled, open-label, multicenter trial to evaluate the effect of Peginterferon Lambda for the treatment of COVID-19.  N=140 adult patients with mild to moderate COVID-19.  Initial enrolment in Ambulatory cohort (Cohort A) followed by a safety assessment before initiation of enrolment in the Hospitalized cohort (Cohort B). Ambulatory patients (Cohort A) with confirmed COVID-19 deemed well enough for home isolation will be randomized to receive a single subcutaneous injection of Peginterferon lambda 180µg prior to discharge or no therapy. Patients will be followed remotely with a home visit for a repeat swab at Day 4 and 8. Hospitalized patients (Cohort B) with moderate COVID-19 will be enrolled and randomized to Peginterferon lambda 180µg on Day 1 and 8, or best supportive care.	1. Cohort A (Ambulatory) - Primary Efficacy Endpoint [ Time Frame: At day 8 ] The proportion of participants with negative SARS-CoV-2 RNA on nasopharyngeal swab. 2. Cohort A (Ambulatory) - Primary Safety Endpoint [ Time Frame: Day 1 to Day 15 ] Rate of combined treatment-emergent and treatment-related severe adverse events (SAEs). 3. Cohort B (Hospitalized) - Primary Efficacy Endpoint [ Time Frame: At Day 15 ] The proportion of participants with negative SARS-CoV-2 RNA on nasopharyngeal swab. 4. Cohort B (Hospitalized) - Primary Safety Endpoint [ Time Frame: Day 1 to Day 30 ] Rate of combined treatment-emergent and treatment-related severe adverse events (SAEs).	Not yet recruiting  Estimated Primary Completion Date: August 1, 2020	Medium

Mavrilimumab  Sponsor: The Cleveland Clinic	NCT04399980	United States, Ohio	Phase 2, multicenter, blinded, randomized placebo controlled study to demonstrate that early treatment with mavrilimumab prevents progression of respiratory failure in patients with severe COVID-19 pneumonia and clinical and biological features of hyper-inflammation.  N=60 subjects with severe pneumonia, defined as hospitalization due to Covid-19 with abnormal chest imaging and SpO2 <92% on room air or requirement for supplemental oxygen randomized 1:1 to Mavrilimumab or placebo.	Proportion of subjects alive and off of oxygen at day 14 [ Time Frame: Day 14 ]	Recruiting  Estimated Primary Completion Date: May 31, 2021	Medium
Interferon Beta-1a + lopinavir/ritonavir+hydroxychloroquine  Sponsor: Shahid Beheshti University of Medical Sciences	NCT04350671	Tehran, Islamic Republic of Iran	A Randomized, Double-Blind, Placebo-Controlled, Clinical Trial N=40 randomised to interferon beta-1a + lopinavir/ritonavir + hydroxychloroquine, or lopinavir/ritonavir + hydroxychloroquine	Time to clinical improvement on a 7-point scale [ Time Frame: From date of randomization until 14 days later. ]	Enrolling by invitation; Estimated Primary Completion: April 20, 2020	Medium
Interferon beta-1b and Hydroxychloroquine  Sponsor: The University of Hong Kong	NCT04350281	Hong Kong	Open-label randomized controlled trial N=80 patients hospitalised for virologically confirmed SARS-CoV-2 infection randomized to interferon beta-1b and hydroxychloroquine, or hydroxychloroquine	Time to negative NPS viral load [ Time Frame: 4 weeks ]	Recruiting; Estimated Primary Completion: March 31, 2022	Medium
Interferon Beta 1a compared to Interferon Beta 1b, both in combination with Hydroxychloroquine + Lopinavir/Ritonavir  Sponsor: Shahid Beheshti University of Medical Sciences	NCT04343768	Iran, Tehran	Phase 4, open-label, randomized trial investigating the benefits of Interferon Beta 1a compared to Interferon 1b on top of The Base Therapeutic Regiment in Moderate to Severe COVID-19.  N=60, with COVID-19  Arm 1: Hydroxychloroquine + Lopinavir/ Ritonavir + Interferon Beta 1a Arm 2: Hydroxychloroquine + Lopinavir/ Ritonavir + Interferon Beta 1b Arm 3: Hydroxychloroquine + Lopinavir/ Ritonavir	Time to clinical improvement [Time Frame: From date of randomization until 14 days later]  (Improvement of two points on the WHO seven-category ordinal scale or discharge from hospital)	Completed;  Estimated Primary Completion Date: April 27, 2020  Update: completed as of May 5, 2020	Medium

Peginterferon lambda alfa-1a subcutaneous injection  Sponsor: Johns Hopkins University	NCT04344600	United States, Maryland	A phase 2b prospective, randomized, single-blind, parallel, controlled trial of two weekly subcutaneous injections of lambda interferon alfa-1a versus placebo for prevention of SARS-CoV-2 infection.  N = 164 non-hospitalized participants at high risk for infection due to household exposure to an individual with coronavirus disease.	Proportion of participants with no evidence of SARS-CoV-2 infection [ Time Frame: Up to 28 days ]  Time (days) to no detection of SARS-CoV-2 in two upper respiratory samples [ Time Frame: Up to 14 days ]	Not yet recruiting  Estimated Study Completion Date: June 2021	Medium
Pegylated interferon lambda  Sponsor: Raymond Chung, Massachusetts General Hospital	NCT04343976	USA, Massachusetts	Phase 2, open-label, randomized, controlled trial.  N=40 (20 inpatient subjects with mild-to-moderate symptomatic and 20 outpatient subjects with mildly symptomatic COVID-19) Randomized to pegylated interferon lambda (180 mcg subcutaneous injection) or standard of care.	Undetectable COVID PCR at day 7 [ Time Frame: 1 week ]	Not yet recruiting (estimated study start May 1, 2020) Estimated Primary Completion Date: October 1, 2020	Low
Recombinant Interferon Alfa-2b  Sponsor: Roswell Park Cancer Institute	NCT04379518	United States, New York	Phase 1/2A, open-label, single-group study of Rintatolimod and IFN-Alpha Regimen  N = 80 cancer patients with mild or moderate COVID-19 infection	1.Incidence of adverse events (AEs) [ Time Frame: Up to 30 days post treatment initiation ] 2.Reduction of progression of infection requiring hospitalization 3.Reduction of acute respiratory distress syndrome (ARDS) 4.30-day mortality	Not yet recruiting  Estimated Primary Completion Date : April 6, 2021	Low
Interferon alpha-2a plus ribavirin	ChiCTR2000030922	Guangdong, China	N=30 patients with mild or normal type COVID-19 randomised to long-acting interferon alpha-2a (135ug) + ribavirin or arbidol + ribavirin	COVID-19 nucleic acid negative conversion rate, causal mortality, all-cause mortality (week 12)	Recruiting; 2020-02-26 To 2020-08-26	Low
Interferon alfa1beta	NCT04293887	Tongji Hospital, China	Early phase 1 Multi-center, randomised, open, blank-controlled, multi-stage clinical study.  N=328 patients with corona pneumonia	Dyspnea, reduced SPO2, respiratory rate	Not yet recruiting; Estimated primary completion date: June 30, 2020	Low
Interferon	ChiCTR2000029638 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49224">http://www.chictr.org.cn/showproj.aspx?proj=49224</a>	Sichuan, China	Multicenter randomised controlled trial. N=100 patients with moderate to severe covid-19 randomised to nebulization of novel gene recombinant super compound interferon or	Clinical symptoms, blood routine etc.	Recruiting;  From 2020-02-03 To 2020-08-01	Low

			nebulization of alpha-interferon			
Peginterferon Lambda-1a	NCT04331899	US	Randomised open label study of N=120 outpatients with mild COVID-19. Randomised to Peginterferon Lambda-1a or standard of care	Duration of Viral shedding of SARS-CoV-2	Not yet recruiting; Estimated Primary Completion: May 31, 2021	Low
Cerrokin (recombinant human interferon alpha 1beta)	ChiCTR2000030480 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50470">http://www.chictr.org.cn/showproj.aspx?proj=50470</a>	Hubei, China	Randomized, open, blank controlled trial. N=332 with covid-19 randomised to cerrokin or conventional treatment	Incidence of side effects	Recruiting; From 2020-03-03 To 2020-07-03	Low
Recombinant human interferon alpha 1b spray	ChiCTR2000030013 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49796">http://www.chictr.org.cn/showproj.aspx?proj=49796</a>	Hubei, China	Preventive study N=450, highly exposed Medical staff treated with interferon (N=300) or nothing	Blood routine examination and chest CT.	Not yet recruiting; From 2020-02-20 To 2020-06-30	Low
Novaferon Recombinant inteferon	ChiCTR2000029496 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48809">http://www.chictr.org.cn/showproj.aspx?proj=48809</a>	Huhan, China	Randomised, open label controlled trial. N=90 with covid-19 randomised to Novaferon, Kaletra, or Novaferon+ Kaletra	Time to negative testing	Recruiting	Low
Inhalation of IFN- $\kappa$ and TFF2 in treatment of nCoV-infected patients.	ChiCTR2000030262 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50136">http://www.chictr.org.cn/showproj.aspx?proj=50136</a>	Shanghai, China	Clinical study, design not described.  Intervention: one day treatment of IFN- $\kappa$ and TFF2 (n=10) two day treatment of IFN- $\kappa$ and TFF2 (n=10) control (n=10)	Wide range of primary outcomes: viral load, clinical features, inflammation, pulmonary imaging	Recruiting	Low
Interferon alfa1b	NCT04320238	Hubei, China	Non randomised study. 2 single arm groups stratified by risk factors will receive treatment with nasal interferon alfa1b. The high risk group will additionally be treated with thymosin. N=2944 medical staff	new-onset COVID-19	Recruiting; Estimated primary completion: May 2020	Low

## Protein kinase inhibitors

### Ruxolitinib (Jakavi)

Ruxolitinib is a selective inhibitor of the Janus Associated Kinases JAK1 and JAK2. These mediate the signalling of a number of cytokines and growth factors that are important for haematopoiesis and immune function. Licenced.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Ruxolitinib  Sponsor: Novartis Pharmaceuticals Incyte Corporation	NCT04362137  2020-001662-11  RUXCOVID	France, Germany, Italy, Spain, United Kingdom, United States	Phase 3, randomized, double-blind, placebo-controlled, 29-day, multicenter study to assess the efficacy and safety of ruxolitinib + standard-of-care therapy, compared with placebo + standard-of-care therapy, in patients aged $\geq 12$ years with COVID-19 pneumonia.  N= 402 randomized 2:1 to oral ruxolitinib 5 mg twice daily + standard-of-care or placebo + standard-of-care for 14 days. An additional 14 days of study drug may be given if the patient's clinical signs and symptoms are not improved or worsen and the potential benefit outweighs the potential risk.	Proportion of patients who die, develop respiratory failure [require mechanical ventilation] or require intensive care unit (ICU) care [ Time Frame: 29 days ]	Not yet recruiting  Estimated Primary Completion Date: July 10, 2020	High
Ruxolitinib  Sponsor: Incyte Corporation	NCT04377620  RUXCOVID-DEVENT	Not stated	Phase 3, randomized, double-blind, placebo-controlled, multicenter study to assess the efficacy and safety of Ruxolitinib in participants with COVID-19-associated ARDS who require mechanical ventilation.  N=500 patients intubated and receiving mechanical ventilation due to COVID-19-associated ARDS and have a PaO <sub>2</sub> /FiO <sub>2</sub> of $\leq 300$ mmHg within 6 - hours of randomization. Randomized to placebo + standard of care or Ruxolitinib 5 mg + standard of care or Ruxolitinib 15 mg + standard of care.	Proportion of participants who have died due to any cause [ Time Frame: Up to Day 29 ]	Not yet recruiting  Estimated Primary Completion Date: July 29, 2020	High
LB1148  serine protease inhibitor  Sponsor: Leading BioSciences, Inc	NCT04390217	Not stated	A phase 2, double-blinded, placebo-controlled, randomized study to evaluate LB1148 for the treatment of pulmonary dysfunction associated with COVID-19 Pneumonia.  N = 120 hospitalized patients with moderate to severe coronavirus disease (COVID-19) randomized 1:1 into one of two treatment groups (LB1148 or Placebo)	Effect of LB1148 on disease progression via measurement of the proportion of patients who are alive and free of respiratory failure. [ Time Frame: 28 Days ]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2020	High

Ruxolitinib Sponsor: Zealand University Hospital	2020-001459-42	Denmark	Single arm study of severely afflicted COVID-19 infected patients in respirator or in the time window with urgent need of respirator before intubation. N= 40 allocated to ruxolitinib	30-days mortality	Duration of trial: 9 months	Low
Ruxolitinib Spons: Incyte Corporation	NCT04355793	Not stated	Expanded Access Program of Ruxolitinib for the Emergency Treatment of Cytokine Storm From COVID-19 Infection	Not applicable	Available	Low
Ruxolitinib Sponsor: Philipps University Marburg Medical Center	NCT04359290	Tyskland?	Phase 2, single-arm, open-label trial to evaluate the efficacy and safety of ruxolitinib in the treatment of patients with COVID-19 severe pneumonia.  Ruxolitinib will be administered p.o. or by gavage feeding starting with 2 x 10mg bid dose at day 1 and can be increased up to 2 x 15mg bid from day 2 to day 28 (max) (depending on platelet counts and renal function).  N=15 adult patients with COVID-19 severe pneumonia.	Overall survival [ Time Frame: 28 days after registration into trial ] To determine the efficacy of ruxolitinib measured by overall survival	Not yet recruiting  Estimated Primary Completion Date: September 2020	Low
Ruxolitinib Sponsor: Washington University School of Medicine	NCT04354714	United States, Missouri	Phase 2, single-group assignment, open-label trial.  N=25 Ruxolitinib will be given twice daily (BID). Dosing on Days 1 through 3 will be 5 mg BID; dosing on Days 4 through 10 will be 10 mg BID.	Overall survival [ Time Frame: Through 28 days ]	Not yet recruiting  Estimated Primary Completion Date: July 31, 2021	Low
Ruxolitinib Sponsor: University of Colorado, Denver	NCT04348071	Not stated yet	Single arm, open label, single site study. N=80 hospitalised patients with COVID-19 allocated to Ruxolitinib	1.Cumulative incidence of Grade 3 and 4 adverse events (AEs) [ Time Frame: Day 0 (screening) through Day 29 ] 2.Cumulative incidence of serious adverse events (SAEs) [ Time Frame: Day 0 (screening) through Day 29 ] 3. Changes in white blood cell count (CBC) through Day 15 [ Time Frame: Day 1 to Day 15 ]	Not yet recruiting; Estimated Primary Completion; August 2020	Low
Ruxolitinib	NCT04331665	Canada, Ontario	Single arm study of N=64 patients with COVID-19	Critically illness	Not yet recruiting; Estimated Primary Completion: October 30, 2020	Low
Ruxolitinib	NCT04334044	Mexico	Single arm study of N=20 patients with COVID-19	Recovery of Pneumonia [ Time Frame: 14 days ]	Not yet recruiting;	Low

					Estimated Primary Completion: June 1, 2020	
Ruxolitinib Sponsor: Novartis Pharmaceuticals	NCT04337359	Not stated	Expanded access. Patients with Severe/Very Severe COVID-19 Illness	Not applicable	Not applicable	Low
Ruxolitinib	NCT04338958	Germany University Hospital Jena	Phase 2, Single arm, non-randomized, open label study N=200 COVID-19 patients grade II/III	Overall response rate in reversal of hyperinflammation [ Time Frame: day 7 after start of therapy ]	Not yet recruiting; Estimated Primary Completion: January 31, 2021	Low
Ruxolitinib + Simvastatin  Sponsor: Fundación de Investigación HM Hospitales	EudraCT: 2020-001405-23  NCT04348695	Spain	Phase 2, open-label, controlled, randomized trial on Ruxolitinib + Simvastatin in prevention and treatment of respiratory failure of COVID-19  N=94, hospitalized COVID-19 infections with 3 or 4 on the WHO 7-point scale  2 arms: Ruxolitinib + Simvastatin or standard of care	Patients achieving a grade 5 or higher of the WHO 7-point ordinal scale of severity categorization for COVID-19  [Time frame: 7 days]	Ongoing  Trial registration: 13-04-2020  Estimate of duration: 1 month  Estimated primary completion: 13-05-2020	Low
Ruxolitinib  Sponsor: Azienda USL Toscana Nord Ovest	NCT04361903  RESPIRE Study	Italy ??	Observational, cohort, retrospective, monocentric, non-profit study.  N=13 SARS-CoV-2 COVID-19 patients with rapid worsening of respiratory parameters in the last 12 hours treated with ruxolitinib, dosage of at least 20 mg x 2 / day in the first 48 hours.	Number of patients who avoid mechanical assisted ventilation in acute respiratory distress syndrome in patients with SARS-CoV-2 COVID-19 [ Time Frame: 15 days ]	Not yet recruiting  Estimated Primary Completion Date: May 24, 2020	Low
Therapeutic Plasma Exchange, Ruxolitinib  Sponsor: Prisma Health-Upstate	NCT04374149	United States	Phase 2, open-label, non-randomized study on the Efficacy of Therapeutic Plasma Exchange (TPE) Alone or in Combination With Ruxolitinib in COVID-19 Positive Patients With PENN Grade 2, 3, 4 Cytokine Released Syndrome (CRS)  N = 20, age 12-80, with Covid-19 infection, PENN class 2,3,4 CRS10, bilateral pulmonary infiltrates receiving either TPE + Ruxolitinib or TPE alone	Overall Response Rate (Defined as greater than or equal to 33% decrease in cytokine load in one-third or more participants) [Time Frame: 14 days]	Not yet recruiting  Estimated Study Completion Date: April 30, 2021	Low
Ruxolitinib + stem cell therapy	ChiCTR2000029580	Tongji hospital, Hubei, China	A prospective, single-blind, randomised controlled trial	Safety	Recruiting;	Low

	<a href="http://www.chictr.org.cn/showproj.aspx?proj=49088">http://www.chictr.org.cn/showproj.aspx?proj=49088</a>		N=70 High risk patients randomised to Ruxolitinib + stem cell therapy, or Conventional treatment		From 2020-01-31 To 2020-12-31	
INC424 / Ruxolitinib Sponsor: Marcelo lastrebner	NCT04414098	Argentina	Phase 2 Experimental, open-label, prospective, single center, add-on study, compared with an historical control arm.  N=100 adults with COVID-19 with Respiratory rate $\geq$ 20/min O2 saturation $\leq$ 93% with FiO2 of 0.21.	Evaluate the efficacy of ruxolitinib in the treatment of COVID-19 severe acute respiratory syndrome [ Time Frame: during 14 days after the commencement of treatment ]	Not yet recruiting  Estimated Primary Completion Date: August 15, 2020	Low

### Baricitinib (Olumiant)

Baricitinib is a selective and reversible inhibitor of Janus kinase (JAK)1 and JAK2. Licensed.

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Baricitinib (Olumiant); Anti-JAK acting against JAK1 and JAK2.  Sponsor: Hospital of Prato	NCT04320277	Tuscany, Italy,	Phase 3 study Non-randomised study with historical controls. N=60 allocated to baricitinib. Controls: patients admitted to hospital the previous 2 weeks who were treated with antiviral and/or hydroxychloroquine.	The percentage of ICU admission	Recruiting; Estimated Study Completion: May 30, 2020	Medium
Baricitinib  Sponsor: Prof. Francesco Menichetti	EudraCT: 2020-001955-42  NCT04393051  BARICIVID-19	Pisa, Italy	PoC, phase 2a study, randomized, parallel, open-label study N=126 allocated to baricitinib + SC vs. standard care	Number of patients requiring invasive ventilation after 7 and 14 days	Not yet recruiting;	Medium
Baricitinib and Ravulizumab  Sponsor: Cambridge University Hospitals NHS Foundation Trust	NCT04390464  TACTIC-R	United Kingdom	A phase 4, randomised, open-label trial to assess the efficacy of the immunomodulatory agents Baricitinib and Ravulizumab as potential treatments for COVID-19 disease against Standard of Care alone.  N = 1167 patients admitted with Covid-19 randomised to ravulizumab, Baricitinib or standard of care	Time to incidence of the composite endpoint of: Death, Mechanical ventilation, ECMO, Cardiovascular organ support, or Renal failure [ Time Frame: up to Day 14 ]	Recruiting  Estimated Primary Completion Date: May 7, 2021	Medium
Baricitinib  Sponsor:	NCT04399798  2020-001185-11	Italy ?	Phase 2, single-arm, open-label trial of the use of Baricitinib in the Treatment of COVID-19-related Pneumonia.	1. Response to treatment: absence of moderate to severe oxygenation	Not yet recruiting	Low

IRCCS Policlinico S. Matteo			N=13 adult patients with a confirmed SARS-CoV-2 pneumonia  Baricitinib 4 mg/day for 7 days	impairment (Berlin criteria) [ Time Frame: 8 days ]  2. Response to treatment: survival [ Time Frame: 8 days ]	Estimated Primary Completion Date: September 15, 2020	
Baricitinib  Sponsor: Fabrizio Cantini	NCT04358614	Italy	Phase 2/3, non-randomized, open-label retrospective study on the efficacy of baricitinib compared with controls (previously COVID-19 receiving standard therapy)  N = 12 patients with moderate pneumonia	To assess the safety of baricitinib combined with antiviral (lopinavir-ritonavir) in terms of serious or non-serious adverse events incidence rate. [ Time Frame: 2 weeks ]	Completed  Actual Study Completion Date: April 7, 2020  Results published in J of infection <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177073/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177073/</a>	Low
Baricitinib  Sponsor: University of Colorado, Denver	NCT04340232	United States, Colorado University of Colorado, Denver	Single arm, open label, single site study. N=80 assigned to baricitinib	Cumulative incidence of Grade 3 and 4 adverse events (AEs) Cumulative incidence of serious adverse events (SAEs) Several other primary outcomes have been stated.	Not yet recruiting; Estimated Primary Completion: August 2020	Low
Baricitinib + Hydroxychloroquine + Lopinavir/Ritonavir + Remdesivir	NCT04373044	United States, California	A phase 2, open-label, single-group trial of an antiviral therapy regimen ((1) hydroxychloroquine PO three times daily, 2) lopinavir/ritonavir PO twice daily, or 3) remdesivir) combined with baricitinib.  N = 59 moderate and severe patients with COVID-19	Proportion of patients requiring invasive mechanical ventilation or dying [ Time Frame: Up to 14 days ]	Not yet recruiting  Estimated Study Completion Date: April 24, 2022	Low

### Other protein kinase inhibitors

Tofacitinib (Xeljanz) Approved for rheumatoid and psoriatic arthritis and ulcerative colitis	NCT04332042	Italy	Phase 2, single arm study of N=50 patients with SARS-CoV2 Infection and confirmed interstitial pneumonia	Need of mechanical ventilation	Not yet recruiting; Estimated Primary Completion: June 20, 2020	Low
Tofacitinib + Hydroxychloroquine  Sponsor: Università Politecnica delle Marche	NCT04390061 2020-002035-30	Multicentre study in Italy	A phase 2 open label randomized controlled trial to test if adding Tofacitinib + hydroxychloroquine to the standard treatment in the early phase of COVID related pneumonitis could prevent the development of severe respiratory failure needing mechanical	Prevention of severe Respiratory Failure requiring mechanical ventilation [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: September 2020	Medium

			ventilation compared to hydroxychloroquine alone.  N = 116 patients with early onset SARS-CoV2 (COVID-19) interstitial pneumonia			
Tofacitinib  Sponsor: Yale University	NCT04415151  I-TOMIC	USA	Phase 2, randomized, double blinded, placebo controlled study is to assess the efficacy and safety of tofacitinib in hospitalized adult (18-65 years old) patients with SARS-CoV-2 and pneumonia who require supplemental oxygen and have serologic markers of inflammation but do not need mechanical ventilation.  N=60 randomized 2:1 to tofacitinib or placebo in addition to standard of care.	Disease Severity [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: March 31, 2021	Medium
Imatinib  Sponsor: University of Maryland, Baltimore	NCT04394416	Not stated	A phase 3, randomized double-blind placebo-controlled trial on the safety and efficacy of imatinib.  N = 204 hospitalized adults with COVID-19	The proportion of patients with a two-point change using the 8-category ordinal scale [ Time Frame: Day 14 from baseline ]	Not yet recruiting  Estimated Primary Completion Date: June 1, 2022	High
Imatinib	EudraCT: 2020-001236-10	Netherlands	a randomized, single-blind, placebo controlled, clinical trial in patients with severe COVID-19 disease. N=304 randomised to imatinib or placebo	Composite outcome of death / need for invasive ventilation / need for ECMO Time frame: 28 days	Ongoing	Medium
Imatinib mesylate  Sponsor: Versailles Hospital	NCT04357613  (IMAGE-19)	France	A phase 2, randomized, open-label trial to evaluate the value of imatinib as early treatment of COVID-19  N = 99 patients aged (>70y) patients hospitalized for a non-severe COVID-19 disease will be randomized 1/1 between standard of care and imatinib 800 mg per day	To evaluate the benefit of early imatinib therapy to prevent severe COVID-19 disease in hospitalized aged patients. [ Time Frame: 30 days ]	Not yet recruiting  Estimated Study Completion Date: December 1, 2020	Low
Pacritinib  An investigational kinase inhibitor with specificity for JAK2 and IRAK1 developed for the treatment of patients with myeloproliferative diseases	NCT04404361	Not stated	Phase 3 randomized, double-blind, placebo-controlled, multicenter study to evaluate the efficacy and safety of pacritinib in hospitalized patients with severe COVID-19 with or without cancer.	Proportion of patients who progress to IMV and/or ECMO or death during the 28 days following randomization [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: July 31, 2020	Medium

Sponsor: CTI BioPharma			N=358 randomized to Pacritinib + standard of care or placebo + standard of care.			
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## Other immunomodulating drugs

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Pirfenidone (Esbriet) EMA approved for pulmonary fibrosis  Sponsor: Huilan Zhang	NCT04282902	Hubei, China Tongji hospital	Phase 3 open label,  N=294 with severe or critical covid-19 randomised to Pirfenidone, or standard treatment	Lesion are of chest CT Change in pulse oxygen from baseline	Recruiting; Estimated primary completion date: April 30, 2020	High
Pirfenidone	ChiCTR2000030333 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48801">http://www.chictr.org.cn/showproj.aspx?proj=48801</a> Same study as NCT04282902?	Hubei, China	A randomized, open-label controlled trial N=292 with severe or critical covid-19 randomised to pirfenidone 400 mg x 3 (n=147) for 4 weeks or conventional treatment (n=145)	Survey, pulse oxygen, chest CT, blood gas	Recruiting From 2020-03-04 To 2020-07-07	High
CD24Fc A non-antiviral immunomodulator. Has completed a phase 2 study for prophylactic treatment of graft-versus-host disease (GVHD) for leukemia patients undergoing hematopoietic stem cell transplantation Sponsor: OncoImmune, Inc.	NCT04317040	United States, Maryland	Phase 3 randomized, Double-blind, Placebo-controlled, Multi-site trial. N=230 with severe covid-19 or NIAID 7-point ordinal score 3 to 4 randomised to CD24Fc, or placebo	Time to improve in clinical status [ Time Frame: 14 days ]: time required from the start of treatment to the improvement of clinical status "severe" to "moderate/mild", or improvement from "scale 3 or 4" to "scale 5 or higher" based on NIAID ordinal scales.	Estimated Primary Completion: May 2021	High
Otilimab  human monoclonal antibody that inhibits granulocyte-macrophage colony-stimulating factor, not licensed  Sponsor: GlaxoSmithKline	NCT04376684 2020-001759-42	Argentina Belgium Brazil Canada Chile France Japan Mexico Netherlands Poland South Africa Spain Sweden United Kingdom	Phase 2, randomized, double-blind, placebo-controlled study evaluating the efficacy and safety of Otilimab  N=800 subjects positive for SARS-CoV-2, hospitalized due to diagnosis of pneumonia, developing new onset of oxygenation impairment and have increased biological markers of systemic inflammation Randomization to otilimab (single dose, i.v.) or placebo.	Proportion of participants alive and independent of supplementary oxygen at Day 28 [ Time Frame: Day 28 ]	Recruiting  Estimated Primary Completion Date: December 21, 2020	High

		United States				
Dialyzable Leukocyte Extract  Sponsor: National Polytechnic Institute, Mexico	NCT04379479  (FUTURE-T)	Mexico	A phase 2, randomized, placebo-controlled, double-blinded study to assess the clinical effect of dialyzable leukocyte extracts  N = 562 patients with symptoms of non-severe acute respiratory infection (suspected/confirmed cases of COVID-19).	Change in the score of the "Contingency scale to assess the severity of acute respiratory disease in cases suspected/confirmed by COVID-19" [ Time Frame: 35 days ]	Not yet recruiting  Estimated Primary Completion Date: August 2020	High
MSTT1041A (astegolimab) + UTTR1147A  MSTT1041A a fully human monoclonal antibody designed to inhibit binding of interleukin-33 (IL-33) to the ST2 receptor. UTTR1147A, a human IL-22Fc (immunoglobulin G (IgG)4) fusion protein, activates IL-22 signaling.  Sponsor: Genentech, Inc.	NCT04386616	United States, California + Pennsylvania	A phase 2, randomized, double-blind, placebo-controlled study to assess the efficacy and safety of MSTT1041A (astegolimab) or UTTR1147A in combination with standard of care (SOC) compared with matching placebo in combination with SOC  N = 300 patients hospitalized with severe coronavirus disease 2019 (COVID-19) pneumonia.	Clinical Status, Assessed Using a 7-Category Ordinal Scale [ Time Frame: Day 28 ]	Not yet recruiting  Estimated Primary Completion Date: September 24, 2020	High
Reparixin inhibits the action of CXCL8 (CXCL8; formerly interleukin 8 (IL-8))  Sponsor: Dompé farmaceutici Spa	EudraCT: 2020-001645-40, "REPAVID-19"	Milan, Italy	Open-label, randomized, multicenter (3), double-arm Phase 2 and 3 trial.  48 patients will be enrolled in Phase 2 and an estimated total of 111 patients will be enrolled up to the end of Phase 3, with a randomization 2:1 Reparixin vs Control (SoC).  The Phase 3 design will be reassessed and decided based on the results of the Phase 2	Phase 2: Composite endpoint of clinical events (the patient requires at least one of the following: supplemental oxygen requirement, mechanical ventilation use, admission to ICU, and use of a rescue medication for any reason)  Phase 3: Composite endpoint of death and of severe clinical events (the patient dies or requires mechanical ventilation use and/or admission to ICU)	Recruiting	High
AMY-101  (complement C3 inhibitor)  Sponsor: Amyndas Pharmaceuticals S.A.  Not yet licensed	NCT04395456	N/A	Phase 2 randomized placebo controlled, single-blind, clinical Trial to Assess the Safety and Efficacy of Complement 3 Inhibitor, AMY-101, in Patients With Acute Respiratory Distress Syndrome Due to COVID-19 (SAVE).  N = 144 age > 18 diagnosed with acute respiratory distress syndrome due to	The proportion of patients who are alive, without evidence of ARDS (i.e. PaO2/FiO2 >300 mm Hg), who do not require any oxygen support (in room air). [Time Frame: 21 days]	Not yet recruiting  Estimated Primary Completion Date: January 2021	High

			SARS-CoV-2 infection to C3 complement inhibitor (AMY-101) or placebo.			
EB05 (IV, inhibitor of TLR4)  Sponsor: Edesa Biotech Inc.	NCT04401475	Not stated	Phase 2 Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of EB05 + SOC vs. Placebo + SOC in Adult Hospitalized Patients With Moderate to Severe COVID-19 Pneumonia.  Standard of care plus single IV infusion of 15mg/kg of EB05. The study is divided in 2 stages.  N=510 adults with laboratory confirmed COVID-19 and hospitalized for COVID-19 related SpO2 ≤94% on ambient air or PaO2/FiO2 <300 mmHg/40 kPa or chest imaging findings compatible with COVID-19 pneumonia. Patients form 3 separate categories.	An improvement of two points on the seven-point ordinal scale [ Time Frame: 28 days ] The severity of COVID-19 related respiratory disease is assessed on a predefined seven-point ordinal scale ranging from not hospitalized with resumption of normal activities to death.	Not yet recruiting  Estimated Primary Completion Date: September 2020.	High
Acalabrutinib  Tyrosine kinase inhibitor Approved to treat chronic lymphocytic leukaemia (CLL) and mantle cell lymphoma (MCL) in adults Sponsor: AstraZeneca	NCT04346199  Study name: CALAVI (Calquence Against the Virus)  <a href="https://www.clinicaltrials.gov/ct2/show/study/NCT04346199">https://www.clinicaltrials.gov/ct2/show/study/NCT04346199</a>	Barcelona, Spain	Interventional, randomised, parallel assignment, open Label, phase 2 Adults, above 18 N=428 S patients hospitalized with COVID-19 Part 1: two treatments acalabrutinib +best supportive care or best supportive care alone Part 2: intensive care unit patients treated with acalabrutinib with best supportive care.	Treatment failure rate (Approx. 30 days)  Treatment failure is defined as use of assisted ventilation or death	Not recruiting  Estimated start date: April 24, 2020  Estimated study completion date: Sep 01, 2020	Medium
Acalabrutinib  Sponsor: AstraZeneca	NCT04380688	United States, several sites	A phase 2, open label, randomized study of the efficacy and safety of acalabrutinib with best supportive care versus best supportive care.  N = 60 patients hospitalized with COVID-19	1.Occurrence of Adverse Events and Serious Adverse Events [ Time Frame: 28 days after last dose ] 2.Subject alive and free of respiratory failure [ Time Frame: Day 14 ]	Not yet recruiting  Estimated Primary Completion Date: September 30, 2020	Medium
Adoptive T-cell therapy  Sponsor: KK Women's and Children's Hospital	NCT04351659	Singapore	Cohort, observational study to develop an emergent treatment protocol using adoptive T-cell therapy for the treatment of severe COVID-19.  N = 8 convalescent donors who have recovered from COVID-19	Success rate in production of SARS-CoV-2 specific T cells from convalescent donor [ Time Frame: Two weeks (The expected duration of donor participation is 2 weeks) ]	Recruiting  Estimated primary Completion Date: August 2020	Low

Anakinra  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04341584	France	A phase 2, randomized, open label clinical trial to evaluate the therapeutic effect and tolerance of Anakinra.  N=240 patients with moderate, severe pneumonia or critical pneumonia associated with COVID-19.	Survival without needs of ventilator utilization at day 14; WHO progression scale $\leq$ 5; Cumulative incidence of successful tracheal extubation (defined as duration extubation > 48h) or withdrawal of NIV or high flow (for > 48h), at day 14; Decrease of at least one point in WHO progression scale score	Not yet recruiting  Estimated Primary Completion: May 2020	Medium
Anakinra  Sponsor: University Hospital, Tours	NCT04364009  (ANACONDA)	France?	A phase 3, multicentre, open-label, randomized controlled to assess the efficacy of Anakinra + optimized Standard of Care (oSOC) as compared to oSOC alone.  N = 240 patients with COVID-19 infection and worsening respiratory symptoms	Treatment success [ Time Frame: After 14 days of treatment ]	Not yet recruiting  Estimated Primary Completion Date: September 10, 2020	Medium
Anakinra Tocilizumab  Sponsor: Hellenic Institute for the Study of Sepsis	NCT04339712  ESCAPE study	Several centres in Greece	N=20 patients with COVID-19 and macrophage activation syndrome or immune dysregulation. MAS treated with anakinra Immune dysregulation treated with tocilizumab	1. Change of baseline total sequential organ failure assessment (SOFA) score [ Time Frame: Visit study day 8 ] 2. Improvement of lung involvement measurements [ Time Frame: Visit study day 8 ] 3. Increase of pO <sub>2</sub> /FiO <sub>2</sub> ratio [ Time Frame: Visit Study Day 8 ]	Recruiting;  Estimated Primary Completion: April 1, 2022	Low
Anakinra  Sponsor: University of Alabama at Birmingham	NCT04362111	USA	Phase 3, randomized, blinded trial to determine whether early treatment with anakinra in covid-19-patients admitted to the hospital with markers of Cytokine Storm Syndrome improves or prevents deterioration of respiratory dysfunction and prevents the development of respiratory failure requiring mechanical ventilation.  N=20 randomized to anakinra (100 mg subcutaneously every 6 hours for period of 5 days) or placebo.	No increase in oxygen requirement and no increase in respiratory support measures [ Time Frame: 48 hours ]	Not yet recruiting  Estimated Primary Completion Date: July 2020	Low
Anakinra and trimethoprim/sulfamethoxazole  Sponsor: Hellenic Institute for the Study of Sepsis	NCT04357366  (SAVE)	Greece	Phase 2, open-label, non-randomized, single-arm trial in the effort to prevent progression in serious respiratory failure  N = 100 patients with lower respiratory tract infection with severe acute	The ratio of patients who will not develop serious respiratory failure (SRF) [ Time Frame: Visit study day 14 ]	Recruiting  Estimated Study Completion Date: April 15, 2022	Low

			respiratory syndrome coronavirus 2 (SARS-CoV-2) at high risk for progression to serious respiratory failure			
Anakinra and Ruxolitinib  Sponsor: Centre Hospitalier Intercommunal de Toulon La Seyne sur Mer	NCT04366232	France	A phase 2, randomized, open-label controlled study to evaluate the efficacy and safety of anakinra and ruxolitinib compared to Standard of care  N = 50	Biological criteria [ Time Frame: 7 days from enrolment ] At least 3 parameters are met including CRP and/or Ferritin among: a.CRP: decrease > 50% b.Ferritinemia: decrease > 1/3 c.Serum creatinine: decrease > 1/3 d.AST/ALT: decrease > 50% e.Eosinophils > 50 /mm3 f.Lymphocytes > 1000 /mm3	Not yet recruiting  Estimated Study Completion Date: August 31, 2020	Low
Anakinra (anti il-1)  Sponsor: NAVARRABIOMED - FUNDACIÓN MIGUEL SERVET	EudraCT number: 2020-001825-29	Spain	A phase 2/3, randomized, open-label clinical trial to assess the effect of anakinra in addition to standard treatment on the need for mechanical ventilation.  N = 180 patients with severe COVID-19 and CSS pneumonia.	Treatment success, defined as number of patients not requiring mechanical ventilation by Day 15. Number of patients not requiring mechanical ventilation (day 28). Time to mechanical ventilation (days) Time to oxygen saturation normalization Stay in ICU and hospitalization (days)	Ongoing  Estimated Primary Completion Date: August 5, 2020	Low
Anti-Interleukin-8 (Anti-IL-8) (BMS-986253)  Sponsor: Matthew Dallos	NCT04347226	United States, New York	Phase 2, open-label, randomized trial investigating the use of Anti-IL-8 in cancer patients with Covid-19 infection  N=138, age > 18, hospitalized cancer patients with Covid-19 infection randomized 2:1 to either BMS-986253 or standard of care	Time to Improvement in the 7-point ordinal scale [Time Frame: 1 year]	Recruiting  Estimated Primary Completion date: September 2021	Medium
APL-9 (Complement (C3) Inhibitor)  Sponsor: Apellis Pharmaceuticals, Inc.	NCT04402060	United States	Phase 1/2 Randomized, Double-Blinded, Vehicle-Controlled, Multicenter, Parallel-Group Study of APL-9 in Mild to Moderate Acute Respiratory Distress Syndrome Due to COVID-19.  N=66 adults with COVID-19 diagnose with respiratory failure requiring oxygen supplementation or either invasive or noninvasive mechanical ventilation or other worsening respiratory symptoms.	Cumulative incidence of treatment-emergent serious adverse events and treatment-emergent adverse events. [ Time Frame: Day 1 through Day 21 ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Medium

ArtemiC  A natural formulation intended for immune-modulation.  Sponsor: MGC Pharmaceuticals d.o.o	NCT04382040	Israel	A phase 2, double-blind, placebo-controlled randomized controlled clinical study designed to evaluate the effect of artemic in patients diagnosed with COVID-19  N = 50 patients diagnosed with COVID-19 randomized in a manner of 2:1 for study drug (ArteminC) and Standard of Care to Placebo and Standard of Care.	1.Time to clinical improvement, defined as a national Early Warning Score 2 (NEWS2) of <math>\leq 2</math> Maintained for 24 Hours in comparison to routine treatment [ Time Frame: 24 hours ] 2.Percentage of participants with definite or probable drug related adverse events [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: July 31, 2020	Medium
Bemcentinib a once-a-day, oral, highly selective and potent inhibitor of AXL kinase  Not authorized. Ongoing development in cancer, immune disease	Not yet registered at clin.trial or in Eu.  The ACCORD study is mentioned in the Press-release 28.04.2020 (link below in email)  Part of UK Fast track-program <a href="https://www.clinicaltrialsarena.com/news/uk-clinical-trials-covid-19-drugs/">https://www.clinicaltrialsarena.com/news/uk-clinical-trials-covid-19-drugs/</a>	UK, 6 Depts.  Platform trial to assess multiple candidate agents, the first of which is bemcentinib	A multicentre, seam-less, Phase II adaptive randomization, for the treatment of COVID-19 in hospitalised UK NHS patients. N=120, 60 active Bemcentinib. 60 SOC	Safety and efficacy, not specified in the press-release	To start imminently  End of April 2020	Low
Conestat alfa (Recombinant Human C1 Esterase Inhibitor)  Sponsor: University Hospital, Basel, Switzerland	NCT04414631	Switzerland	Phase 2 Randomized, open-label, parallel-group, controlled, multi-center clinical trial.  N=120 adults with confirmed COVID-19. 72 Hour treatment with conestat alfa in addition to SOC compared to SOC.	Disease severity on the 7-point Ordinal World Health Organization [ Time Frame: on day 7 ]	Not yet recruiting Estimated Primary Completion Date: June 2021.	Medium
Cyclosporine (+ standard treatment)  Sponsor: Instituto de Investigación Sanitaria Fundación Jiménez Díaz	2020-001262-11  NCT04392531	Spain	Phase 4, open-label, controlled, randomized trial on the efficacy of cyclosporine in addition to standard treatment compared to standard treatment only  N=120 with confirmed COVID-19 infection	Proportion of patients in a non-serious category at 12 days of treatment	Ongoing  Start date: 2020-04-09  Estimate of duration: 2 months  Estimated Primary Completion: July 2020	Low
Degarelix  Sponsor: VA Office of Research and Development	NCT04397718	United States, multiple sites	A phase 2, multicenter, double-blinded, placebo-controlled, randomized controlled trial of best supportive care (BSC) vs BSC plus degarelix.	A composite endpoint of mortality, ongoing need for hospitalization, or requirement for mechanical ventilation/extracorporeal membrane oxygenation (ECMO) at Day 15 after randomization. [ Time Frame: 15 days ]	Not yet recruiting  Estimated Primary Completion Date: October 1, 2020	Medium

			N = 198 veterans with COVID-19 requiring hospitalization			
Duvelisib Sponsor: Washington University School of Medicine	NCT04372602	United States, Missouri	A phase 2, open-label, non-randomized pilot study of Duvelisib to combat COVID-19  N = 25	Overall survival [ Time Frame: Through 28 days ]	Not yet recruiting  Estimated Study Completion Date: December 31, 2021	Low
Etoposide Sponsor: Boston Medical Center	NCT04356690	Not stated	A phase 2, non-randomized, open label study designed to evaluate the safety and efficacy of etoposide compared to no intervention  N = 134 patients that are either on ventilation or not on ventilation	Change in pulmonary status [ Time Frame: baseline, through study completion, an average of 45 days ]	Not yet recruiting  Estimated Study Completion Date: December 2021	Low
Fingolimod Sponsor: First Affiliated Hospital of Fujian Medical University	NCT04280588	Wan-Jin Chen	Phase 2, not randomised, single arm N=30 with severe covid19	The change of pneumonia severity on X-ray images	Recruiting;  Estimated study completion: July 1, 2020	Low
Granulocyte colony-stimulating factor Sponsor: The First Affiliated Hospital of Guangzhou Medical University	ChiCTR2000030007 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49619">http://www.chictr.org.cn/showproj.aspx?proj=49619</a>	Guangdong and Hubei, China	Randomised controlled trial, N=200 with mild to severe covid-19 and low white blood cell count and low lymphocyte count	Clinical symptoms	Not yet recruiting;  From 2020-02-03 To 2020-04-10	Medium
Ibrutinib Sponsor: AbbVie	NCT04375397	Not stated	A phase 2, randomized, double-blinded, placebo-controlled study to evaluate if Ibrutinib is safe and can reduce respiratory failure.  N = 46 patients hospitalized for COVID-19 infection and pulmonary distress	Percentage of Participants Alive and Without Respiratory Failure [ Time Frame: Day 28 ]	Not yet recruiting  Estimated Primary Completion Date: July 30, 2020	Medium
IC14 Sponsor: Implicit Bioscience	NCT04391309  COV04	United States, Washington	Phase 2, multicenter, randomized, double-blind, placebo-controlled study of IC14 (antibody to CD14) in reducing the severity of respiratory disease in hospitalized COVID-19 patients.  N=300 subjects (age 18-75 years) with RT-PCR documented SARS-CoV-2 or history of SARS-CoV-2 within 7 days and hypoxemia randomized 1:1 to IC14 or placebo.	Acute respiratory failure [ Time Frame: Day 1-22 ]	Not yet recruiting  Estimated Primary Completion Date: July 2021	Medium

Interleukin-7 Sponsor: Revimmune	NCT04379076	UK?	A phase 2, randomized, double-blinded placebo-controlled study of recombinant interleukin-7 (CYT107) for immune restoration N = 48 hospitalized lymphopenic patients with coronavirus COVID-19 Infection	Improvement of the absolute lymphocyte count (ALC) of lymphopenic (ALC≤1000/mm <sup>3</sup> ) COVID-19 infected participants out to approximately 30 days following initial Study drug administration or Hospital discharge (HD), whichever [ Time Frame: 1 month ]	Not yet recruiting  Estimated Primary Completion Date: October 30, 2020	Medium
Recombinant Interleukin-7 (CYT107) Sponsor: Revimmune	NCT04407689  ILIAD-7-FR	France Belgium	Phase 2, Multicenter, Randomized, Double-blinded Placebo-controlled Study of Recombinant Interleukin-7 (CYT107) for Immune Restoration of Hospitalized Lymphopenic Patients With Coronavirus COVID-19 Infection in France and Belgium  N=48 patients (age 25-80 years of age) randomized 1:1 to InterLeukin-7 or placebo.	Improvement of the absolute lymphocyte count (ALC) of lymphopenic (ALC≤1000/mm <sup>3</sup> ) COVID-19 infected participants out to approximately 30 days following initial Study drug administration or Hospital discharge (HD), whichever occurs first [ Time Frame: 1 month ]	Not yet recruiting  Estimated Primary Completion Date: October 30, 2020	Medium
Jakotinib	ChiCTR2000030170 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50017">http://www.chictr.org.cn/showproj.aspx?proj=50017</a>	Shanghai, China	Single arm treatment stratified by severity, N=16	Time to clinical improvement / time to clinical recovery Time window: 28 days	Recruiting;  From 2020-02-15 To 2020-07-31	Low
Lenalidomide Sponsor: Hospital Universitario Getafe	NCT04361643	Spain	Phase 4, double-blind randomized controlled clinical trial of low-dose Lenalidomide in the treatment of COVID-19.  N=120 subjects > 60 diagnosed or clinical symptoms of covid-19 randomized to Lenalidomide or placebo.	Clinical improvement [ Time Frame: 30 days ]  Immune-inflammatory improvement [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: August 31, 2020	Medium
LEUKINE® (sargramostim) A recombinant human granulocyte-macrophage colony stimulating factor (rhu GM-CSF) FDA approved drug. Sponsor: University Hospital Ghent	EudraCT Number: 2020-001254-22  NCT04326920	Belgium	A prospective, randomized, open-label, interventional study  N=80 COVID-19 patients with acute hypoxic respiratory failure randomised to Leukine or standard care.	Oxygenation after 5 DAYS through assessment of pretreatment (day 0) and post-treatment (day 5) ratio of PaO <sub>2</sub> /FiO <sub>2</sub> and through measurement of the P(A-a) O <sub>2</sub> gradient	Ongoing; Estimated Primary Completion: October 31, 2020	Medium
Leukine® (Sargramostim - GM-CSF) Sponsor: Singapore General Hospital	NCT04400929	Not stated	Phase 2 randomized, double-blind, placebo-controlled clinical trial of iv Leukine® in 30 patients with confirmed COVID-19 and acute hypoxic respiratory failure.	Measuring oxygenation [ Time Frame: Day 1 to Day 6 ] To measure the effectiveness of Leukine® in restoring lung homeostasis, the primary endpoint of this intervention is measuring oxygenation after 5 days of intravenous treatment	Not yet recruiting  Estimated Primary Completion Date: June 2021	Medium

			N=30 confirmed with COVID-19, 15 will receive Leukine® + SOC and 15 will receive placebo + SOC.	through assessment of pre-treatment and post-treatment ratio of PaO <sub>2</sub> /FiO <sub>2</sub> , and through measurement of the P(A-a)O <sub>2</sub> gradient, which can easily be performed in the setting of clinical observation of inpatients.		
Sargramostim  Sponsor: Partner Therapeutics, Inc.	NCT04411680  iLeukPulm	Not stated	Phase 2, randomized, open-label study to determine if inhaled sargramostim, as an adjunct to institutional standard of care, improves clinical outcomes in hospitalized patients with COVID-19-associated acute hypoxemia.  N=60 randomized 2:1 to sargramostim plus standard of care or standard of care alone	1. Change in oxygenation parameter of P(A-a)O <sub>2</sub> gradient by Day 6 [ Time Frame: 1-6 days ]  2. Percent of patients who have been intubated by Day 14 [ Time Frame: 1-14 days ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium
Melphalan  Sponsor: Federal State Budgetary Institution, Pulmonology Scientific Research Institute	NCT04380376	Russian Federation	A phase 2, non-randomized, open-label study to evaluate the efficacy, safety of inhalations of low-doses of melphalan  N = 60 patients with pneumonia with confirmed or suspected COVID-19.	1.The changes of COVID Ordinal Outcomes Scale [ Time Frame: baseline vs Day 14, day 28 ] 2.Percentage of the patients with Clinical Recovery [ Time Frame: baseline vs day 7, day 14, day 28 ] 3.The changes of the Borg's scale [ Time Frame: Baseline vs day 7, day 14, day 28 ]	Recruiting  Estimated Primary Completion Date: October 30, 2020	Low
Methotrexate (MTX)  Sponsor: Azidus Brasil	NCT04352465	Brasilien	Phase I/II, Non-Randomized, open-label, to evaluate the efficacy and safety of MTX-loaded nanoparticles in three different doses to treat severe COVID-19 patients.  N=42  The study will be divided in 3 phases: Phase A: subjects will be dosed 20 mg of MTX IV, once per week (total of 4 doses). Phase B: will only start after 2nd or 3rd administration of phase A. Subjects will be dosed 30 mg of MTX IV, once per week (total of 4 doses). Phase C: will only start after 2nd or 3rd administration of phase B. Subjects will be dosed 40 mg of MTX IV, once per week (total of 4 doses).	Change in clinical conditions [ Time Frame: 21 days ] Clinical condition will be measured by lung injuries	Not yet recruiting  Estimated Primary Completion Date: June 30, 2020	Low

Nintedanib (Ofev) Indicated for idiopathic pulmonary fibrosis  Sponsor: Huilan Zhang	NCT04338802	Not stated	Open label, randomized, Placebo-controlled Study. N=96 with COVID-19 randomised to Nintedanib or placebo	Changes in forced vital capacity (FVC) [ Time Frame: 8 weeks ]	Not yet recruiting; Estimated Primary Completion: May 4, 2020	Medium
Nintedanib  Sponsor: Tongji Hospital of Tongji Medical College, Huazhong Science and Technology University	ChiCTR2000031453	China, Hubei	Phase 4, Single-center, randomized, parallel, placebo-controlled clinical trial to evaluate the efficacy and safety of Nintedanib esilate soft capsules in the treatment of pulmonary fibrosis in patients with moderate to severe COVID 19.  N = 80 adults with confirmed COVID-19 with alleviation of symptoms to Nintedanib esilate soft capsules or placebo.	FVC, DLco%, 6MWT, HRCT score and change in cough	Not yet recruiting  From 2020-04-02 To 2020-08-01	High
Opaganib  Sponsor: RedHill Biopharma Limited	NCT04414618	United States	Phase 2 Randomized, Double-blind, Placebo-Controlled.  N=40 adults with COVID-19 requiring supplemental oxygen randomized 1:1 to opaganib + SOC or matching placebo + SOC.	Evaluation of the total oxygen requirement (area under the curve) using daily supplemental oxygen flow (L/min) over 14 days [ Time Frame: Every day from day 1 to day 14 of treatment ]	Not yet recruiting Estimated Primary Completion Date: September 30, 2020	Medium
Ozanimod  Sponsor: François Lellouche, Laval University	NCT04405102	Not stated	Phase 2, randomized, open-label study to evaluate the efficacy and safety Ozanimod for the treatment of adult COVID-19 patients requiring oxygen support.  N=42 randomized to Ozanimod + standard of care or Standard of care alone.	1. The mean oxygen flow required to maintain the oxygen saturation (SpO2) target at 92% [ Time Frame: First 7 days of the trial ]  2. Daily Patient progression assessed with the World Health Organization-adapted 6-points ordinal scale [ Time Frame: through whole duration of the hospitalization, an average of 14 days ]	Not yet recruiting Estimated Primary Completion Date: January 6, 2022	Low
PD-blocking antibody Sponsor: Southeast University, China	NCT04268537	Not stated	Phase 2 randomised, open label  N=120 patients with severe covid19 randomised to  PD-1 blocking antibody, Thymosin, or standard treatment	lung injury score [ Time Frame: 7 days ]	Not recruiting yet;  Estimated primary completion date: April 30, 2020	Low
Polyinosinic:polycytidylic acid	ChiCTR2000029776	zhejiang	Open label study	Time to Clinical recovery	Recruiting;	Low

	<a href="http://www.chictr.org.cn/showproj.aspx?proj=49342">http://www.chictr.org.cn/showproj.aspx?proj=49342</a>		N=40, randomised to Polyinosinic:polycytidylic acid or conventional therapy		From 2020-02-11 To 2020-12-31	
Pirfenidone	ChiCTR2000030892	Guangdong, China	Open label, prospective exploratory experimental medical study N=40 patients with severe post-COVID-19 fibrosis randomized to pirfenidone or no intervention	HRCT pulmonary fibrosis score	Recruiting; Duration: from 2020-03-06 to 2020-12-30	Low
Pirfenidone  Sponsor: The third xiangya hospital of Central South University	ChiCTR2000031138	China, Hu'nan	A multicenter, prospective, randomized controlled trial to investigate the therapeutic effect of the anti-inflammatory and antifibrotic drug pirfenidone compared to support treatment  N = 40 patients with severe COVID-19	HRCT score	Recruiting  From 2020-03-01 To 2020-12-31	Low
Plitidepsin  Sponsor: PharmaMar	NCT04382066	Spain	A phase 1, randomized, open-label study to evaluate the safety profile of three doses of plitidepsin  N = 27 patients with COVID-19 requiring hospitalization	1.Frequency of occurrence of Neutropenia $\geq$ grade 3 2.Frequency of occurrence of Thrombocytopenia $\geq$ grade 3 3.Frequency of occurrence of Anemia $\geq$ grade 3 4.Frequency of occurrence of Lymphopenia $\geq$ grade 3 5.Frequency of occurrence of CPK increase $\geq$ grade 3 6.Frequency of occurrence of Increase ALT and / or AST $\geq$ grade 3 7.Frequency of occurrence of Increase total bilirubin or direct bilirubin $\geq$ grade 3 8.Frequency of occurrence of Neurotoxicity $\geq$ grade 3 9.Frequency of occurrence of QT-QTc interval extension $\geq$ grade 3 10.Frequency of occurrence of Other adverse events $\geq$ grade 3 11.Percentage of patients in whom treatment cannot be completed. 12.Percentage of patients with adverse events. 13.Percentage of patients with serious adverse events. 14.Percentage of patients with ECG abnormalities.	Recruiting  Estimated Primary Completion Date: November 2020	Low

<p>Product: pamrevlumab</p> <p>Sponsor: Prof. Luca Richeldi MD PhD Professor of Respiratory Medicine Fondazione Policlinico Universitario A. Gemelli IRCCS Università Cattolica del Sacro Cuore</p> <p>and</p> <p>FibroGen, Inc.</p>	<p>EudraCT number: 2020-001472-14</p>	Italy	<p>Phase 2/3 An open label randomised 1:1 Parallel arm study investigating the efficacy and safety of intravenous administration of pamrevlumab versus standard of care in patients with COVID-19</p> <p>N=65 hospitalized covid-19 patients requiring supplemental oxygen, but not ventilation, randomised 1:1</p> <p>Pamrevlumab dosing, 30 mg/kg IV, will be administered at day 1, day 7 and day 14.</p>	<p>Proportion of patients not on ventilatory support @15 days</p>	<p>Best guess not started Recruiting yet</p> <p>Estimated primary completion July/August 2020</p>	Medium
<p>Recombinant human Interleukin-2</p>	<p>ChiCTR2000030 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49567167">http://www.chictr.org.cn/showproj.aspx?proj=49567167</a></p>	Hubei, China	<p>Randomised, controlled trial. Blinding not stated. N=80 randomised to Recombinant Human Interleukin-2, or placebo</p>	<p>Fatality rate, and CD8+, CD4+ and NK cells</p>	<p>Not yet recruiting; From 2020-03-02 To 2020-09-01</p>	Low
<p>Selinexor</p> <p>Oralselective inhibitor of nuclear export (SINE) which blocks the cellular protein XPO1</p> <p>Approved by FDA for heavily pretreated multiple myeloma</p> <p>Sponsor: Karyopharm Therapeutics Inc</p>	<p>NCT04349098</p> <p>EudraCT: 2020-001411- 25</p> <p>XPORT-CoV-1001</p>	Global trial with sites in US, Europe and Israel	<p>Interventional, randomized, parallel assignment, single-blind study N=230 18 years and above Evaluate the activity and safety of low dose oral Selinexor (KPT-330 or XPOVIO) in patients with severe COVID- 19 infection Phase II Treatment 3 times daily for 2 weeks</p>	<p>Percentage of Participants with at Least a 2 Point Improvement in the Ordinal Scale [Time Frame: Baseline to Day 14]</p>	<p>Not recruiting</p> <p>Estimated study start: April 30, 2020</p> <p>Estimated primary completion data: Aug 31, 2020</p>	Medium
<p>Selinexor</p> <p>Sponsors and Collaborators Karyopharm Therapeutics Inc</p>	NCT04355676	Not stated	<p>Phase 2 Randomized, Open-Label, Multicenter Study. N=80 patients with moderate or severe COVID-19 ranomised to selinexor 20 mg every second day or selinexor 40 mg every second day</p>	<p>Percentage of Participants with at Least a 2 Point Improvement in the Ordinal Scale [ Time Frame: Baseline to Day 14 ]</p>	<p>Not yet recruiting; Estimated Primary Completion: August 30, 2020</p>	Low
<p>Sirolimus</p> <p>Sponsor: University of Cincinnati</p>	NCT04341675	United States, Ohio, University of Cincinnati	<p>Phase 2 randomized, double-blind, placebo-controlled study of Sirolimus Treatment in Hospitalized Patients With COVID-19 Pneumonia (SCOPE)</p>	<p>Progression to advanced respiratory support in patients treated with Sirolimus vs placebo</p>	<p>Recruiting</p>	Medium

			N=30  Randomized 2:1 to Sirolimus 6mg oral on day 1 followed by 2mg daily for max 14 days or until hospital discharge or placebo		Estimated primary completion date: July 2020	
Sirolimus  Sponsor: Walter K. Kraft	NCT04371640	United States, Pennsylvania	A phase 1, double-blinded, randomized, placebo controlled study comparing the virological efficacy of add-on sirolimus with standard care to placebo and standard care.  N = 40	Change in SARS-CoV-2 viral burden from baseline to day 7 of treatment [ Time Frame: Baseline, and days 1, 2, 3, 4, 5, 6, & 7 post-dose for all patients ]	Recruiting  Estimated primary Completion Date: August 2020	Medium
TD-0903 Inhaled TD-0903 is a lung-selective, nebulized Janus kinase inhibitor in development for the potential treatment of hospitalized patients with Acute Lung Injury caused by COVID-19. Sponsor: Theravance Biopharma	NCT04350736	United Kingdom	A Phase 1, Double-blind, Randomized, Placebo-controlled, Sponsor-open, single ascending dose and multiple ascending dose study. N=54 healthy volunteers randomized to TD-0903 or placebo in different cohorts of single or multiple doses	Safety and Tolerability of SAD of TD-0903: Adverse Events [ Time Frame: Day 1 to Day 8 ]  Safety and Tolerability of MAD of TD-0903: Adverse Events [ Time Frame: Day 1 to Day 14 ]	Not yet recruiting; Estimated Primary Completion: June 2020	Medium
TD-0903  Sponsor: Theravance Biopharma	NCT04402866  2020-001807-18	United Kingdom	Phase 2, randomized, double-blind, placebo-controlled, parallel-group, multi-center study of an inhaled Pan-Janus Kinase Inhibitor, TD-0903, to treat symptomatic acute lung injury associated with COVID-19.  N=159 Part 1 (n=24) Cohort: MAD Dose A, MAD Dose B and MAD Dose C. 6 out of 8 subjects per cohort will be randomized to receive the TD-0903 dose. 2 out of 8 subjects per cohort will be randomized to receive placebo. Part 2 (n=135) N=135 randomized 1:1:1 to TD-0903 dose A, TD-0903 dose B or placebo.	1. Part 2: SaO2/FiO2 ratio [ Time Frame: Baseline, Day 7 ]  2. Part 2: Ventilator-free Days (VFDs) [ Time Frame: Baseline through Day 28 ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium

Tranilast, novel NLRP Inflammasome inhibitor. Used for the prevention of scarring post glaucoma filtration surgery. Has previously been approved in Japan and South Korea for bronchial asthma, keloid and hypertrophic scar.	ChiCTR2000030002 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49738">http://www.chictr.org.cn/showproj.aspx?proj=49738</a>	Anhui, China	Open label study;  N=60 randomised to tranilast or vonventional therapy	Cure rate	Recruiting;  From2020-02-15 To 2020-07-30	Low
Thymosin  Sponsor: Wuhan Jinyintan Hospital (Wuhan Infectious Diseases Hospital)	ChiCTR2000029806 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49161">http://www.chictr.org.cn/showproj.aspx?proj=49161</a>	Not stated	N=120 with severe covid-19 and lymphocytopenia randomised to PD-1 ( PD-1 and thymosin), thymosin, or conventional treatment	Proportion of patients with a lung injury score reduction of 1-point or more 7 days after randomization	Recruiting;  From2020-01-01 To 2021-01-31	Medium
Thalidomide Sponsor: First Affiliated Hospital of Wenzhou Medical University	NCT04273581	China	Prospective, Multicenter, Randomised, Double-blind, Placebo, Parallel Controlled Clinical Study  N=40, Severe Covid-19 randomised to thalidomide or placebo	Time to Clinical Improvement (TTCl) (Time Frame: up to 28 days)	Not yet recruiting;  Primary completion date: April 30, 2020	Medium
Thalidomide; Sponsor: First Affiliated Hospital of Wenzhou Medical University	NCT04273529	China	Phase 2 study, prospective, Multicenter, Randomised, Double-blind, Placebo, Parallel Controlled Clinical Study  N=100 moderate Covid-19 randomised to thalidomide, or placebo	Time to Clinical Recovery (TTCR) (Time Frame: up to 28 days)	Not yet recruiting, Estimated primary completion date: June 30, 2020	Medium
NK cells	NCT04280224	China, Henan	Phase 1  N=30 with covid19 randomised to NK cells, or Conventional treatment	Improvement of clinical symptoms including duration of fever, and respiratory frequency  Adverse reactions	Recruiting; Estimated primary completion date: Sep 30, 2020	Low
NK cells  Sponsor: Huzhou Central Hospital	ChiCTR2000031735	China, Zheijang	Phase 0, parallel, interventional study to evaluate the safety and efficacy of cord blood NK cells in the treatment of new coronavirus and other viral pneumonia patients.  N = 20 aged 18 years old diagnosed with new coronavirus to NK cells were injected by intravenous drip once a day for 2 to 3 times in total, each dose was 4 10 <sup>7</sup> pieces /kg body weight,100ml	Monitoring of adverse events within 24 hours after infusion, Recovery time, Virus nucleic acid negative time and rate, The rate and time of main symptoms disappear, Pulmonary imaging changes, Arterial oxygen partial pressure and oxygenation index were measured 2 days after infusion, Blood RT, Serum inflammatory factors	Not yet recruiting  From 2020-03-01 To 2021-02-28	Low

			normal saline suspension or 100ml normal saline intravenous drip.			
Umbilical cord blood CIK (cytokine induced killer) and NK (natural killer) cells	ChiCTR2000030329 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49779">http://www.chictr.org.cn/showproj.aspx?proj=49779</a>	Shaanxi, China	N=90 patients with mild to moderate covid-19 and poor immune function randomised 1:1:1 to Umbilical cord CIK cells, Umbilical cord NK cells, or Conventional treatment	Status of immune function Time of nucleic acid turns to negative Length of hospital stay	Not yet recruiting From 2020-03-01 To 2021-02-17	Low
NK cells, IL15-NK cells, NKG2D CAR-NK cells, ACE2 CAR-NK cells, NKG2D-ACE2 CAR-NK cells	NCT04324996	China	A Phase I/II Study of Universal Off-the-shelf NKG2D-ACE2 CAR-NK Cells N=90 randomised to 5 different treatments of NC-cells	Clinical response Safety and tolerability	Recruiting; Estimated Primary Completion: May 31, 2020	Medium
Allogeneic NK transfer  Sponsor: Universidad Nacional de Colombia	NCT04344548	Colombia	Phase 1/2 open label clinical trial to evaluate the safety and immunogenicity of allogeneic NK cells from peripheral blood mononuclear cells (PBMCs) of healthy donors in patients infected with COVID-19.  N = 10 adult patients with COVID-19 infection with NEWS 2 score >4	Adverse effects and Safety [ Time Frame: 3 months ]	Not yet recruiting  Estimated Primary completion : June 10, 2020	Low
Type I macrophages therapy	ChiCTR2000029431 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48907">http://www.chictr.org.cn/showproj.aspx?proj=48907</a>	Liaoning, China	3 arm intervention study. N=45 patients with covid-19 randomised to Critical Treatment + Ankylosaurus, Critical Treatment + Ankylosaurus+M1 suppression therapy, or Critical Treatment	CT of lung	Recruiting; Study execute time: 2020-01-29 2021-12-31	Low
COVID-19 Specific T Cell derived exosomes (CSTC-Exo)  Sponsor: TC Erciyes University	NCT04389385	Turkey	Phase 1, open-label trial on Aerosol Inhalation of the Exosomes Derived From Allogenic COVID-19 T Cell in the Treatment of Early Stage Novel Coronavirus Pneumonia  N = 60, age 18-75 with confirmed Covid-19 infection and early stage NCV pneumonia	1. Adverse reaction 2. Efficacy 3. Rate of recovery without mechanical ventilator  [Time frame: 28 days]	Active, not recruiting  Estimated Primary Completion Date: September 30, 2020	Low
Viral Specific T-cells  Sponsor: Children's Hospital Medical Center, Cincinnati	NCT04406064	United States, Ohio	Phase 2, single-arm, open-label trial to learn more about the use of viral specific T-lymphocytes (VSTs) when given in the presence of COVID-19 signs and symptoms	Successful production of viral specific T-cells [ Time Frame: Within 30 days post culture initiation ]	Not yet recruiting  Estimated Primary Completion Date: June 2024	Low

			Viral Specific T-cells will be infused into study participants who have evidence of SARS-CoV-2 infection.  N=100 symptomatic COVID-19 patients who have failed at least one FDA-approved treatment for COVID-19 disease.			
XPro1595  A second-generation inhibitor of tumor necrosis factor  Sponsor: Immune Bio, Inc.	NCT04370236	Not stated	Phase 2, randomized, open-label trial.  N=150 subjects aged > 50 years old, covid-19 positive in the last 28 days. Randomized 1:1 to XPro1595 (a weekly subcutaneous injection of 1mg/kg XPro1595 for 2 weeks) + standard of care or standard of care only.	Proportion of participants with treatment failure [ Time Frame: 28 days ]	Not yet recruiting  Estimated Study Completion Date: January 2021	Medium
Zanubrutinib  approved for the treatment of mantle cell lymphoma in the United States  Sponsor: BeiGene	NCT04382586	United States, several locations	A phase 2, randomized, double blind, placebo-controlled study of zanubrutinib treatment  N = 52 patients hospitalized for COVID-19 infection and pulmonary distress	Respiratory failure-free survival rate at day 28 [ Time Frame: 28 Days ]	Not yet recruiting  Estimated Primary Completion Date: July 2020	Medium
Zilucopla  Complement inhibitor, not licensed  Sponsor: University Hospital, Ghent	NCT04382755	Belgium	A phase 2, randomized, open-label, placebo-controlled study to investigate the efficacy of complement c5 inhibition with zilucoplan in improving oxygenation and short-and long-term outcome of COVID-19  N = 81 COVID-19 patients with acute hypoxic respiratory failure	1.Mean change in oxygenation [ Time Frame: at predose, day 6 and day 15 (or at discharge, whichever comes first) ] 2.Median change in oxygenation [ Time Frame: at predose, day 6 and day 15 (or at discharge, whichever comes first) ]	Not yet recruiting  Estimated Primary Completion Date: May 2021	Medium

## Anti-inflammatory drugs

Leflunomide Approved in EU for rheumatoid arthritis and psoriasis arthritis  Sponsor: Renmin Hospital of Wuhan University	ChiCTR2000030058  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49831">http://www.chictr.org.cn/showproj.aspx?proj=49831</a>	Hubei	Phase 3, multicenter, randomized, double-blind, controlled clinical trial N=200 patients with pneumonia caused by novel coronavirus. randomised to Leflunomide, or placebo	The days from positive to negative for viral nucleic acid testing	Not yet recruiting;  From 2020-03-01 To 2020-05-30	High
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Leflunomide Sponsor: University of Chicago	NCT04361214	United States, Illinois	Phase 1, open-label, non-randomized tolerability study of high dose leflunomide therapy in outpatient adult participants with mild COVID-19  N = 20 patients with COVID-19 who are not yet hospitalized, but have risk factors for disease progression and complications.	1.Tolerability of high dose leflunomide as measured by leflunomide dose modifications  2.Tolerability of high dose leflunomide as measured by discontinuation of leflunomide  3.Tolerability of high dose leflunomide as measured by Adverse Events	Not yet recruiting  Estimated Study Completion Date: July 2020	Low
Leflunomide Sponsor: Shandong University Qilu Hospital	ChiCTR2000033372	China, Hubei	Non-randomized study to evaluate the safety and efficacy of leflunomide for the treatment of refractory COVID-19 in adult patients  Retrospective registration  N=30 hospitalised adult with covid-19 Standard treatment plus Oral leflunomide or Standard treatment alone.	SARS-CoV-2 clearance	Completed  From 2020-03-12 To 2020-05-17	Low
Colchicine Sponsor: Estudios Clínicos Latino América	ClinicalTrials.gov Identifier: NCT04328480 The ECLA PHRI COLCOVID Trial (COLCOVID)	Multi-centre, multi-country in South America – Lead Country: Argentina	Randomized, controlled, open-label, 2500 adult patients with suspicion of COVID-19 Drug: Colchicine Comparator: Local standard of care	All-cause mortality [ Time Frame: During hospitalization or until death, whichever comes first, assessed up to 30 days ] Number of participants who die	Recruiting, estimated primary completion 30 June 2020	High
Colchicine	ClinicalTrials.gov Identifier: NCT04322682  Colchicine Coronavirus SARS-CoV2 Trial (COLCORONA) (COVID-19)	Canada, Presumably multi-centre, lead centre: Montreal Heart Institute, Montreal, Quebec, Canada	A randomized, double-blind, placebo-controlled, multi-center study N=6000 non-hospitalised high risk patients diagnosed with COVID-19 infection within the last 24 hours randomised to colchicine or placebo on top of standard of care.	Composite of death or the need for hospitalization due to COVID-19 infection in the first 30 days after randomization	Recruiting, estimated completion September 2020	High
Colchicine Sponsor: Sociedad Española de Cardiología	2020-001841-38  Col-VID	Spain	Phase 3, randomized, controlled, open-label study to determine whether the use of colchicine in patients hospitalized for COVID-19 pneumonia and with hyperinflammation data reduces the start of non-invasive ventilation (CPAP / BiPAP), admission to the ICU, start of invasive ventilation or death.	1. Support compound with CPAP / BiPAP, ICU admission, invasive ventilation or death.  2. Cytokine levels (IL-6) and inflammatory parameters (PCR, ESR, ferritin, fibrinogen, blood count) at recruitment, at 48 hours and on the fifth day of treatment.	Ongoing  Estimated Primary Completion Date: 2020-09-26	Medium

			N=240 adult patients hospitalized for COVID pneumonia and hyperinflammation randomized to Colchicine or ??	3. Ultrasensitive troponin on the fifth day of treatment.		
Colchicine  Sponsor: Instituto de Investigación Marqués de Valdecilla	NCT04416334  COLCHICOVID	Spain	Phase 3, randomized, single-center, open-label, controlled trial to evaluate efficacy and safety of early administration of colchicines in patients older than 70 years, with high risk of pulmonary complications due to COVID-19).  N=1028 randomized to colchicine + symptomatic treatment (paracetamol) or symptomatic treatment alone.	1. Number of participants who die due to COVID-19 infection [ Time Frame: 21 days post-randomization ]  2. Number of participants who require hospitalization due to COVID-19 infection [ Time Frame: 21 days post-randomization ]	Active, not recruiting  Estimated Primary Completion Date: September 25, 2020	Medium
Colchicine, Ruxolitinib and Secukinumab  Sponsor: Lomonosov Moscow State University Medical Research and Educational Center	NCT04403243  COLORIT	Russia	Phase 2, randomized, open-label study.  N=70 patients with mild and severe COVID-19 randomized 3:1:1:3 to colchicine, ruxolitinib, secukinumab and control group (standard of care)	Change from baseline in clinical assessment score COVID 19 (CAS COVID 19) Frame: baseline [ Time Frame: baseline, day 12 ]	Recruiting  Estimated Primary Completion Date: July 22, 2020	Medium
Colchicine  Sponsor: Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran	NCT04367168	Mexico	Phase 2, double-blinded, placebo-controlled, randomized trial on the use of Colchicine in mild and severe Covid-19 infection  N = 174, Age ≥ 18, diagnosed with Covid-19 with mild or severe disease receiving in-hospital care	Temperature, myalgia, arthralgia, total lymphocyte count, D-dimer, fibrinogen and ferritin levels [Time Frame: Up to 24 days]  2. Progression to severe disease [Time Frame: Up to 10 days]	Not yet recruiting	Medium
Colchicine, Herbal Phenolic Monoterpene Fractions  Sponsor: Kermanshah University of Medical Sciences	NCT04392141	Iran	Phase 1/2, randomized, double-blinded trial.  N=200 subjects (10 years or older) with COVID-19 based on laboratory and/or radiological and clinical manifestation randomized to Colchicine + Herbal Phenolic Monoterpene Fractions or standard treatment.	Mortality rate [ Time Frame: up to 30 days ]	Recruiting  Estimated Primary Completion Date: June 1, 2020	Low
Colchicine	2020-001511-25  NCT04350320 COL-COVID	Spain	Randomized open-label controlled trial N= 102 patients with COVID-19 randomized to Colchicine. Comparator not stated	Ordinal 7-point clinical evaluation scale; IL-6 concentration	Start date: 2020-04-14 Estimated duration 6 months	Low

Colchicine	ClinicalTrials.gov Identifier: NCT04322565 Colchicine Efficacy in COVID-19 Pneumonia EudraCT: 2020-001258-23	Italy, Multicentre in	Randomized, controlled, open-label trial. N= 310 patients randomised to colchicine + standard or standard treatment	Clinical improvement [Time Frame: Day 28] Time to clinical improvement: defined as time from randomization to an improvement of two points from the status at randomization on a seven-category ordinary scale  Hospital discharge [Time Frame: Day 28] Live discharge from the hospital (whatever comes first)	Estimated study start date April 20, 2020. Estimated primary completion June 20 2020	Low
Colchicine Sponsor: University of California, Los Angeles	NCT04355143	Not stated yet	Open-label (Unblinded) Randomized Trial N=150 patients with cardiac injury including any of the following: Elevated troponin level, Elevated BNP level, New ECG changes (ischemia or conduction issues), New arrhythmia on telemetry, New drop in LVEF on echocardiogram randomised to colchicine or current care	Maximum troponin level [ Time Frame: up to 30 days ]	Not yet recruiting; Estimated Primary Completion: April 25, 2021	Low
Colchicine  Sponsor: University Of Perugia	NCT04375202	Italy	A phase 2, randomized, open-label study.  N = 308 patients with COVID-19 disease randomized in a 1:1 ratio to receive Colchicine plus current care versus current care.	Rate of entering the critical stage  Comply with any of the followings: a.Respiratory failure occurs and requires mechanical ventilation; b.Patients combined with other organ failure need ICU monitoring and treatment c.Death	Recruiting  Estimated Primary Completion Date: June 30, 2020	Low
Colchicine  Sponsor: Shahid Beheshti University of Medical Sciences	NCT04360980	Iran	Phase 2, randomized, double-blinded trial to evaluate the effects of standard protocol therapy with or without Colchicine in covid-19 infection.  N=80 adult covid-19 patients randomized 1:1 to Colchicine plus standard treatment or standard treatment.	1. CRP/N/R ratio change [ Time Frame: 2 weeks ]  2. Clinical deterioration by the WHO definition [ Time Frame: 2 weeks ] including change in fever or O2 Saturation  3. PCR Viral Load [ Time Frame: 2 weeks]  4. CT severity involvement index [ Time Frame: 2 weeks ]	Recruiting  Estimated Primary Completion Date: May 20, 2020	Medium

Cholchicine  Sponsor: IDIVAL	2020-001603-16  COLCHI-COVID	Spain	Phase 3, randomized, multicentre, open-label, controlled trial to investigate the effectiveness of early Cholchicine administration in patients over 70 years of age with high risk of developing severe pulmonary complications associates with SARS-CoV2 pneumonia.  N=1024 patients with PCR-confirmed diagnosis of COVID-19 infection within the last 24 hours, 70 years of age or older, not hospitalized or institutionalized in senior centers/residences. Randomized to Cholchicine or other medicinal products/standard of care???	Number of participants who die or require hospitalization due to 19-COVID infection within 30 days of randomization	Ongoing  Estimated primary completion: 2020-08-08	Medium
Colchicine	ClinicalTrials.gov Identifier: NCT04326790 The GREEK Study in the Effects of Colchicine in Covid-19 (GRECCO-19)  2020-001455-40	Greece	Cluster randomization, 180 participants with COVID-19 Drug: Colchicine Comparator: Standard treatment	CRP increase to 3 x upper limit of normal [ Time Frame: 3 weeks ] Time to increase in C-reactive protein to 3 times the ULN  Clinical deterioration in the semiquantitative ordinal scale suggested by the WHO R&D committee [ Time Frame: 3 weeks ] Time to clinical deterioration (2 levels in the WHO R&D Blueprint scale)	Planning, not yet recruiting, estimated completion August 31 2020	Medium
Colchicine  Sponsor: Maimonides Medical Center	NCT04363437  (COMBATCOVID19)	United States, New York	A phase 2, open-label, randomized trial to evaluate if colchicine reduce the chance of needing a mechanical ventilator compared to usual care.  N = 70 patients diagnosed with COVID-19 infection who require oxygen supplementation	Percentage of Patients requiring supplemental oxygen [ Time Frame: 1 day to 1 month ]	Recruiting  Estimated Study Completion Date: June 30, 2021	Low
Naproxen	NCT04325633	France	Open label randomised controlled trial. N=584 critically COVID-19 patients randomized to Naproxen +lansoprazole or standard care	Mortality all causes at day30	Not yet recruiting; Estimated primary completion: April, 2021	Medium
Ibuprofen	NCT04334629	Not stated	Randomised, double-blinded trial N=230 hospitalised patients with COVID-19 and acute hypoxemic respiratory failure	Worsening respiratory failure; defined using severity of hypoxaemia using [PaO2/FiO2 ratio OR SpO2/FiO2 ratio]	Not yet recruiting; Estimated Primary Completion: August 26, 2020	Low

Inhaled Hypertonic ibuprofen  Sponsor: Química Luar SRL	NCT04382768	Argentina	An open-label expanded compassionate use program for patients infected with SARS-CoV-2 to evaluate the reduction in severity and progression of lung injury with inhaled ibuprofen  N = 40 patients with severe acute respiratory syndrome due to SARS-CoV-2 virus.	1.Change in the scale of ordinary COVID results at 7, 14 and 28 days in patients with acute respiratory infection, induced by SARS-CoV-2, treated with inhaled Ibuprofen. [ Time Frame: 7, 14 and 28 days ] 2.Change to Negativization of the swab to the following treatment points on day 7, day 14, 21 and 28 after treatment with inhaled Ibuprofen. [ Time Frame: 7, 14 and 28 days ]	Enrolling by invitation  Estimated Primary Completion Date: January 2021	Low
Celebrex  Sponsor: Guangzhou Eighth People's Hospital	ChiCTR2000031630	China, Guangdong	Phase 0 non randomized clinical study for Celebrex in the treatment of novel coronavirus pneumonia (COVID-19).  N = 60 age > 18 with confirmed novel coronavirus 2019 and fever/pneumonia to Celebrex capsules 200mg / time twice a day for 7 days or routine treatment.	Prostaglandin E2	Recruiting  From 2020-02-17 To 2020-06-17	Low
Piclidenoson (CF101) Mechanism of action is A3AR mediated and includes modulation of key signaling proteins, such as PI3K, PKA, PKB/Akt, IKK and NF-κB, resulting in de-regulation of the Wnt/β-catenin pathway and inhibition of inflammatory cytokine production	NCT04333472	Israel	Open label randomized trial. N=40 hospitalised patients with COVID-19 randomised to Piclidenoson or standard of care	Duration of viral shedding in days [ Time Frame: 28 days ] Time to clinical recovery (TTCR) in days [ Time Frame: 28 days ] Treatment-emergent adverse events (AEs) [ Time Frame: 28 days ]	Not yet recruiting; Estimated Primary Completion: June 6, 2020	Low

## Glucocorticoids

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Hydrocortisone, Solu-Cortef  Licensed for: Acute adrenal insufficiency (Addisonian crisis), Status asthmaticus and Anaphylactic shock	NCT04348305 Eudra CT: 2020-001395-15  (COVID STEROID)	Denmark	Randomised, double blinded, placebo controlled. 1000 participants with COVID-19 treated with intravenous infusion of hydrocortisone 200 mg or placebo over 24 hours.	Days alive without life support after 28 days.	Recruiting  Estimated Primary Completion: March 30, 2021	High

Ciclesonide  Sponsor: Covis Pharma S.à.r.l.	NCT04377711	Not stated	Phase 3, multicenter, randomized, double-blind, placebo-controlled study to assess the safety and efficacy of Ciclesonide metered-dose inhaler in non-hospitalized patients 12 years of age and older with symptomatic COVID-19 infection.  N=400 randomized to Ciclesonide or placebo.	Percentage of patients with subsequent emergency department visit or hospital admission for reasons attributable to COVID 19 by day 30 [ Time Frame: Day 30 ]	Not yet recruiting  Estimated Primary Completion Date: September 1, 2020	High
Dexamethasone	NCT04325061	Spain	Multicenter, randomized, controlled, open-label trial involving mechanically ventilated adult patients with ARDS caused by confirmed COVID-19 infection N=200 randomised to dexamethasone or standard intensive care	All-cause mortality at 60 days after enrollment	Not yet recruiting;  Estimated primary completion date: October 2020	Medium
Dexamethasone  Sponsor: Centro de Educación Medica e Investigaciones Clínicas Norberto Quirno	NCT04395105	Argentina	Phase 3, multicentre, randomized, open-label clinical trial to evaluate dexamethasone versus Usual Care for the Treatment of COVID-19 Related ARDS.  N = 284 subjects To IV Dexamethasone administered once daily: 16 mg from day 1 to 5 and 8 mg from day 6 to 10 or usual treatment.	Ventilator-free days at 28 days [Time Frame: 28 days after starting mechanical ventilation]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2020	Medium
Methylprednisolone Sodium Succinate  Sponsor: Fundação de Medicina Tropical Dr. Heitor Vieira Dourado	NCT04343729  MetCOVID	Brazil	Phase IIb, double-blind, randomized, placebo-controlled clinical trial.  N=420 hospitalised patients with symptoms suggestive or confirmed diagnosis of severe acute respiratory syndrome (SARS) in COVID-19 infection randomized 1:1 to injection of Methylprednisolone (0.5mg/kg of weight, twice daily, for 5 days) or placebo.	Mortality rate at day 28 [ Time Frame: on day 28, after randomization ]	Recruiting  Estimated Primary Completion Date: September 2020	Medium
Prednisone  Sponsor: University Hospital, Tours	NCT04359511	France	Phase 3, randomized, single-blinded (Outcomes Assessor) trial to evaluate the efficacy and safety of prednisone in oxygen-dependent patients with COVID-19 pneumonia in Grand Ouest Interregion France	Clinical improvement defined by the improvement of 2 points on a 7-category ordinal scale, at 14 days. [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Medium

			N=210 subjects hospitalized with a clinical diagnosis of COVID-19 pneumonia and need of oxygen therapy. Randomized to Prednisone (0.7 mg/kg/d) + standard of care or only standard of care			
Dexamethasone  Sponsor: University of Colorado, Denver	NCT04360876	United states, Colorado ???	Single-center, Phase 2a, pragmatic, randomized, double-blinded, placebo-controlled trial to determine the safety and estimate efficacy of targeted corticosteroids in mechanically ventilated patients with the hyper-inflammatory sub phenotype of ARDS due to coronavirus disease 2019.  N=90 randomized 1:1 to dexamethasone (intravenous 20mg daily for 5 days followed by 10mg daily for 5 days) versus placebo.	Ventilator Free Days (VFD) at Day 28 [ Time Frame: 28 Days ]	Not yet recruiting  Estimated Primary Completion Date: September 30, 2020	Medium
Glucocorticoids  Sponsor: NAVARRABIOMED - FUNDACIÓN MIGUEL SERVET	EudraCT number: 2020-001827-15	Spain	A phase 3, randomized, placebo-controlled, double-blind study to assess the efficacy of glucocorticoid boluses in the inflammatory phase of SARS-CoV-2 pneumonia. N = 72	Proportion of patients with treatment failure up to 14 days after randomization. Definition of treatment failure: to. Death of the patient, or b. ICU admission, or c. Start of mechanical ventilation, or d. Clinical deterioration / worsening, defined as decrease in SpO2 below 90% or PaO2 below 60 mmHg in ambient air + radiological progression.	Ongoing  Estimated Primary Completion Date: September 5, 2020	Medium
Methylprednisolone  Sponsor: IDIVAL Instituto de Investigación Sanitaria Valdecilla	2020-001934-37	Spain	Phase 4, comprehensive cohort, randomized, controlled, open-label trial to evaluate the efficacy of early anti-inflammatory treatment with corticosteroids.  N=200 patients admitted to hospital with Covid-19, evidence of inflammation. Randomized to Methylprednisolone or standard treatment.	Combination of death, ICU stay or non-invasive ventilation (NIV). [Time frame: At the time of discharge or death]	Ongoing  Estimated primary completion: 2022-05-08	Low
Methylprednisolone  Sponsor: Henry Ford Health System	NCT04374071	United States, Michigan	Observational study on Early Short Course Corticosteroids in Hospitalized Patients With COVID-19	Transfer to Intensive care unit (ICU)  Need for medical ventilation	Completed	Low

			N = 250, with Covid-19 infection, need for ventilation and bilateral pulmonary infiltrates	Mortality [Time Frame: 14 days followup for every patient in each group]	Estimated Study Completion Date: April 30, 2020	
Corticosteroid  Sponsor: Auxilio Mutuo Cancer Center	NCT04355247	Puerto Rico	Phase II pilot exploratory study, single group assignment. N=20 COVID-19 regardless of severity will be assigned to Methylprednisolone 80 mg IV bolus injection will be given daily x 5	Clinical complete response criteria requires all the following:  No need for ventilatory support at any point O2 Saturation of >/= 93% by day 14 of therapy Alive by day 28 from registration CT chest with minimal or no evidence of disease by day 28 from registration	Recruiting;  Estimated Primary Completion: July 31, 2020	Low
Dexamethasone	NCT04327401	Brazil	Open label randomised trial. N=290 participants with Moderate/severe ARDS randomised to dexamethasone or Standard treatment	Ventilator-free days [ Time Frame: 28 days after randomization ]	Not yet recruiting; Estimated Primary Completion; August 30, 2020	Low
Dexamethasone  Sponsor: Centre Chirurgical Marie Lannelongue	NCT04347980	France Reanimation adulte. Hopital Marie Lannelongue	Single blind randomized clinical trial. N=122 with COVID-19 ARDS torandomised to Dexamethasone+ Hydroxychloroquine, or Hydroxychloroquine	Day-28 mortality [ Time Frame: 28 days after randomization ]	Recruiting; Estimated Primary Completion; June 2020	Low
Corticoids	Eudract: 2020-001307-16	Spain	Open label randomized controlled trial. N=104 Patients with ARDS secondary to COVID-19. Test-drug: Solumedrol Comparator not stated	Death for any cause in the first 28 days after randomization.	Ongoing	Low
Glucocorticoid	NCT04244591	China, Beijing	Phase 2 and 3: open label, randomised controlled trial  N=80 with severe disease (ICU admission) randomised to methylprednisolone 40 mg x2 for 5 days	Lower Murray lung injury score (Time Frame: 7 days and 14 days after randomization)	Completed;  Update: Completed as of April 15 2020	Low
Prednisone  Sponsor: Hospices Civils de Lyon	NCT04344288  2020-001553-48  CORTI-Covid	France, multiple sites	Phase 2, randomized, open-label trial.  N=304 patients hospitalized for Covid-19 viral pneumonia randomized to prednisone during 10 days (oral, 0.75 mg/kg/day during 5 days then 20 mg/day during 5 more days) or nothing (control group).	Number of patients with a theoretical respiratory indication for transfer to intensive care unit evaluated by a SpO2 <90% stabilized at rest and under not more than 5 L / min of supplemental oxygen using medium concentration mask. [ Time Frame: 7 days ]	Recruiting  Estimated Primary Completion Date: November 2020	Medium
Methylprednisolone	NCT04263402	Tongji Hospital	Phase 4 open label, Prospective, Randomised Controlled Cohort Study	1. Rate of disease remission 2. rate and time of entering the critical stage	Not yet recruiting; Estimated study completion: July 1, 2020	Low

			N=100 patients with severe pneumonia randomised to <40 mg methylprednisolone/day, or 40-80 mg/day			
Methylprednisolone	NCT04273321	China, Hubei	Open label, randomised trial  N=400 patients Randomised to Methylprednisolone 1mg/kg/day ivgtt for 7 days or ?	The incidence of treatment failure in 14 days	Recruiting; Estimated primary completion: May 1, 2020	Low
Methylprednisolone	ChiCTR2000029386  <a href="http://www.chictr.org.cn/showproj.aspx?proj=48777">http://www.chictr.org.cn/showproj.aspx?proj=48777</a>  <a href="https://www.ncbi.nlm.nih.gov/pubmed/32149773">https://www.ncbi.nlm.nih.gov/pubmed/32149773</a>	Chongqing, China	a Randomised Controlled Trial  N=40 with severe covid-19 randomised to methylprednisolone or conventional treatment	Mortality 12 weeks, 4 weeks and clinical improvement	Recruiting From 2020-01-29 to 2021-01-29	Low
Tacrolimus + Methylprednisolone  Sponsor: Hospital Universitari de Bellvitge	NCT04341038  EudraCT Number: 2020-001445-39  TACRO-BELL-COVID	Spain	Phase 3, Open, randomized, single centre trial (the statistician who will finally carry out the analyses will be blind to the treatment received by the patients).  N=84 hospitalized severe COVID-19 lung injury patients randomized to Methylprednisolone + Tacrolimus or usual care.	Time to reach clinical stability [ Time Frame: 28 days ]	Recruiting  Estimated Primary Completion Date: June 1, 2020	Low
Corticosteroids	ChiCTR2000029656 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49086">http://www.chictr.org.cn/showproj.aspx?proj=49086</a>	Hubei, China	Open label randomised controlled trial. N=100 patients with Covid-19 randomised to methylprednisolone or standard treatment	ECG, chest imaging, complications	Not yet recruiting.  From 2020-02-14 To 2020-04-14	Low
Corticosteroids	ChiCTR2000030481  <a href="http://www.chictr.org.cn/showproj.aspx?proj=50453">http://www.chictr.org.cn/showproj.aspx?proj=50453</a>	Hubei, China	Parallel study, blinding unknown; N=200 corticosteroid therapy timing early timing, medium timing, or conventional treatment	The time of duration of COVID-19 nucleic acid RT-PCR test results of respiratory specimens (such as throat swabs) or blood specimens change to negative.	Recruiting;  From 2020-03-01 To 2020-04-30	Low
Corticoids, inhaled  Pulmicort Turbuhaler 400 microgramos (budesonide)	2020-001616-18	Spain	Randomised, open label clinical trial. N=300 patients with COVID-19 randomised to budesonide or standard of care	A composite outcome: patients requiring mechanical ventilation, high flow oxygenotherapy, receiving systemic corticoids and/or anti IL1 , anti IL-6 and/or dying for any cause	Ongoing by 28.04.2020. Estimated study duration: 6 months	Low

Methylprednisolone	NCT04323592	Italy	Interventional study with historical matched controls. N=104 patients with COVID-19 treated with methylprednisolone or standard of care	Death or ICU admission or Invasive mechanical ventilation [ Time Frame: 28 days ]	Recruiting; Estimated Primary Completion: May, 2020	Low
Prednisone	2020-001622-64 TAC-COVID19	Spain	Randomised open label controlled trial. N=200 Outpatients with COVID-19 randomised to prednisone or standard of care	admission after 30 days	Ongoing by 28.04.2020. Estimated study duration: 3 months	Low
Inhaled Steroid + formoterol fumarate (Symbicort)	NCT04331054	Paris, France	Randomised open label study. N=436 hospitalised patients with covid-19 randomised to symbicort or standard of care	Time (in days) to clinical improvement within 30 days after randomization	Recruiting; Estimated Primary Completion: July 13 2020	Medium
Budesonied (inhaled)	NCT04355637	Spain	Randomized, controlled open label clinical trial. N=300 hospitalised patients with COVID-19 randomised to Inhaled budesonide or standard treatment	Composite variable that includes the initiation of treatment with high flow-O2 therapy, non-invasive or invasive ventilation, systemic steroids, use of biologics (anti IL-6 or anti IL-1) and/or death) at day 15 after initiation of therapeutic intervention	Not yet recruiting; Estimated Primary Completion: August 31, 2020	Low
Budesonide  Sponsor: Fondation Ophtalmologique Adolphe de Rothschild	NCT04361474	France ???	Phase 3, multicenter, randomized, single-blinded trial to evaluate the efficacy of local budesonide (nasal irrigation) in the management of persistent hyposmia in COVID-19 patients.  N=120 randomized to nasal irrigation with budesonide and physiological saline or nasal irrigation with physiological saline only.	Patient with more than 2 points on the ODORATEST [ Time Frame: 30 days ] Percentage of patients with an improvement of more than 2 points on the ODORATEST score (5) after 30 days of treatment	Not yet recruiting  Estimated Primary Completion Date: April 25, 2020	Medium
Ciclesonide Inhalation Aerosol  Sponsor: Ola Blennow, MD, PhD	NCT04381364	Sweden	A phase 2, open-labelled, randomized clinical trial for 1:1 ratio of ciclesonide or control arm.  N = 446 patients with COVID-19	Duration of received supplemental oxygen therapy [ Time Frame: 30 days after study inclusion ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2020	Medium
Ciclosonide (inhaled) Ciclosonide + Hydroxychloroquine	NCT04330586	Korea	Open label randomised trial N=141 randomised to Ciclosonide Ciclosonide+Hydroxychloroquine, Standard of care	Rate of SARS-CoV-2 eradication at day 14	Not yet recruiting;  Estimated Primary Completion: June 30, 2020	Low

## Stem cell therapy

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
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Stem cell therapy  Sponsor: Beijing 302 Hospital	NCT04288102	Hubei, China	Phase 2 Prospective, double-blind, multicentre, randomised trial  N=60 severe Covid-19 patients randomised 2:1 to 3 intravenous doses of mesenchymal stem cells (MSCs) or placebo (saline).	Improvement time of clinical critical treatment index within 28 days  Side effects in the MSCs treatment group	Recruiting;  Estimated primary completion date:15 July 2020	High
Umbilical Cord-derived Mesenchymal Stromal Cells  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04333368	France	Double-blinded, randomised trial. N=60 patients with ARDS randomised to MSC or placebo	Respiratory efficacy evaluated by the increase in PaO2/FiO2 ratio from baseline to day 7	Estimated Primary Completion; August 31, 2020	High
Allogenic human umbilical derived mesenchymal stem cells (ACT-20-MSC), Allogenic human umbilical derived mesenchymal stem cells in conditioned media (ACT-20-CM)  Sponsor: Aspire Health Science	NCT04398303  AHS 20-03	Not stated	Phase 1/2 trial of ACT-20 in patients with moderate to severe COVID-19 pneumonia in two parts.  Part 1: open-label study, n=10 (5 with moderate COVID-19 pneumonia and 5 with severe COVID-19 pneumonia). Randomized 1:1 to ACT-20-CM or ACT-20-MSC resuspended in ACT-20-CM.  Part 2: randomized, blinded, placebo-controlled study. N=60 (30 with moderate COVID-19 pneumonia and 30 with severe COVID-19 pneumonia). Randomized 1:1:1 to ACT-20-MSC in ACT-20-CM, ACT-20-CM or placebo.	Mortality at day 30 [ Time Frame: 30 days post treatment ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium
Cord blood stem cells  Sponsor: Aljazeera Hospital	NCT04393415	Egypt	Randomized, double-blinded trial to evaluate the Effect of Cord Blood in Improving the Symptoms of Covid-19  N=100 patients with positive covid-19, symptoms and isolated in the hospital randomized to cord blood stem cells or placebo	The number of patients with positive covid 19 who will improve after receiving stem cells [ Time Frame: 2 weeks ]	Not yet recruiting  Estimated Primary Completion Date: July 25, 2020	Medium
BM-Allo.MSC  Sponsor: NantKwest, Inc.	NCT04397796	Not stated	A phase 1b randomized, double-blind, placebo-controlled study of the safety of therapeutic treatment with immunomodulatory mesenchymal stem cells.  N = 45 adults with COVID-19 infection requiring mechanical ventilation	1.Incidence of AEs [ Time Frame: 30 days ] 2.Mortality [ Time Frame: 30 days ] 3.Death [ Time Frame: 30 days ] 4.Number of ventilator-free days [ Time Frame: 60 days ]	Not yet recruiting  Estimated Primary Completion Date: June 2021	Medium

Wharton Jelly mesenchymal stromal cells  Sponsor: Banc de Sang i Teixits	NCT04390139	Spain	A phase 1/2, double-blind, randomized, placebo-controlled pilot clinical trial for the evaluation of the efficacy and safety of two doses of WJ-MSC.  N = 30 patients with moderate and acute respiratory distress syndrome secondary to infection by COVID-19	All-cause mortality at day 28 [ Time Frame: Day 28 ]	Recruiting  Estimated Primary Completion Date: October 2020	Medium
Wharton Jelly mesenchymal stromal cells  Sponsor: BioXcellerator	NCT04390152	Colombia	A phase 1/2 double-blinded, placebo-controlled, randomized trial to evaluate the safety and efficacy of intravenous infusion of Wharton's Jelly Derived Mesenchymal Stem Cell compared to hydroxychloroquine, lopinavir/ritonavir or azithromycin and placebo  N = 40 patients with acute respiratory distress syndrome diagnosis due to COVID 19	Intergroup mortality difference with treatment [ Time Frame: 28 days. ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Medium
Mesenchymal stem cells  Sponsor: Huangshi Hospital of Traditional Chinese Medicine (Municipal Infectious Disease Hospital)	ChiCTR2000031494	China, Hubei	Phase 1, single arm, randomized, interventional study to evaluate whether the clinical study protocol of umbilical cord derived stem cells in the treatment of Corona Virus Disease 2019 has efficacy and more benefits.  N = 36 adults with confirmed COVID-19 to receive infusion of mesenchymal stem cells + conventional medication or conventional medication only.	Chest Imaging, lung function and ADL	Recruiting  From 2020-02-01 To 2020-12-02	Medium
PLX-PAD  Sponsor: Pluristem Ltd.	NCT04389450	United States, New York  Israel	Phase 2, double-blinded, placebo-controlled, randomized trial on the Efficacy and Safety of Intramuscular Injections of PLX PAD for the Treatment of Severe COVID-19  N = 140, age 40-80, with Covid-19 and meeting the ARDS definition	Number of ventilator free days [Time Frame: 28 days]	Not yet recruiting  Estimated Primary Completion: September 2020	Medium
Mesenchymal Stem Cell  Sponsor: Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran	NCT04416139	Mexico	Phase 2, non-randomized, open-label study to describe the clinical changes secondary to IV administration of MSC allogenic, in patients with bilateral COVID-19 pneumonia complicated by severe ARDS  N=10	1. Functional Respiratory changes: PaO2 / FIO2 ratio [ Time Frame: Three weeks ]  2. Clinical cardiac changes: Heart rate per minute [ Time Frame: Three weeks ]	Recruiting  Estimated Primary Completion Date: April 30, 2021	Low

				3. Clinical Respiratory Changes: Respiratory rate per minute [ Time Frame: Three weeks ]		
				4. Changes in body temperature [ Time Frame: Three weeks ]		
CYNK-001 is an immunotherapy containing NK cells derived from human placental CD34+ cells, culture-expanded in vitro  NOT licensed Company: Celularity (spinout from Celgene)	NCT04365101  FDA IND approval  Title: A Phase I/II Study of Human Placental Hematopoietic Stem Cell Derived Natural Killer Cells (CYNK-001) for the Treatment of Adults With COVID-19	USA  Not stated yet, but probably multi-center	Phase I/II clinical study N=86 COVID-19 infected adults Incl: mild to mode-rate pulmonary involvement. Excl: ICU  Phase I: CYNK-001 (Days 1,4, and 7) in 14 adult patients.  Phase II: randomized, open-label design; multiple doses of CYNK-001 compared to the control group: Best Supportive Care. Up to 72 adult pt with a 1:1 randomizat ratio.	Phase I: Frequency and Severity of AE Time Frame: up to 12 mo  Phase II: clearance of SARS-CoV2 infection	Plan start recruitment 30.04.2020  Primary Completion date: Nov 30, 2020	Low
Mesenchymal Stem Cells (MSCs)  Sponsor: Icahn School of Medicine at Mount Sinai	NCT04371393	Not stated	Phase 3, randomized, double blind, parallel design, placebo controlled trial  N=300 patients with moderate to severe acute respiratory distress syndrome due to covid-19 randomized 1:1 to intravenous infusion of MSCs (remestemcel-L®) plus standard of care or placebo plus standard of care	Number of all-cause mortality [ Time Frame: 30 days ]	Not yet recruiting  Estimated Study Completion Date: April 2022	Medium
Allogeneic adipose-derived mesenchymal stem cells (HB-adMSCs), hydroxychloroquine (HC), azithromycin (AZ)  Sponsor: Hope Biosciences	NCT04362189	United States, Texas	Phase 2, randomized, double-blinded, placebo-controlled trial to evaluate the safety and efficacy of four IV infusions of either placebo or HB-adMSCs in subjects with or without hydroxychloroquine and azithromycin treatment for patients hospitalized with COVID-19.  N=110 adult patients hospitalized due to suspected COVID-19 infection randomized to HC+AZ+HB-adMSCs or HC+AZ+Placebo or HB-adMSCs or placebo.	1. 28-day mortality [ Time Frame: End of study (day 28) ]  2. Invasive mechanical ventilation [ Time Frame: Day 0, 3, 7, 10, 28 ]	Not yet recruiting  Estimated Primary Completion Date: October 31, 2020	Medium
Allogeneic mesenchymal stem cells (MSV®-allo)	EudraCT number: 2020-001682-36	Spain	Randomized, double-blind, placebo-controlled phase I/II clinical trial to	Proportion of patients in whom removal of invasive mechanical ventilation has	Ongoing	Medium

Sponsor: CITOSPIN S.L.			evaluate the safety and efficacy of allogeneic mesenchymal stem cells (MSV®-allo)  N = 24 patients in acute respiratory failure with COVID-19 pneumonia	been achieved in less than 7 days after IMP administration. Proportion of patients surviving on day 28 from diagnosis	Estimated study completion: Unknown	
Stem Cell Product (allogeneic adipose-derived mesenchymal stromal cell)  Sponsor: Rigshospitalet, Denmark	NCT04341610  2020-001330-36	Denmark	Phase 1/2, randomized and double-blind placebo-controlled study to evaluate the impact of CSCC_ASCs on the activated immune system and clinical efficacy on pulmonary function..  N=40 patients in respirator.	Changes in clinical critical treatment index	Not yet recruiting  Estimated Primary Completion Date: January 30, 2021	Medium
Allogeneic adipose-derived mesenchymal stem cells (HB-adMSCs)  Sponsor: Hope Biosciences	NCT04348435	United States, Texas	Phase 2, randomized, double-blind, placebo-controlled, single center trial on the efficacy and safety of Allogeneic HB-adMSCs to provide immune support against COVID-19.  N=100 subjects with high or very high exposure risk of contracting COVID-19, but no signs of COVID-19. Randomized to HB-adMSCs 200MM or HB-adMSCs 100MM or HB-adMSCs 50MM or placebo.	1. Incidence of hospitalization for COVID-19 [ Time Frame: week 0 through week 26 (end of study) ]  2. Incidence of symptoms associated with COVID-19 [ Time Frame: week 0 through week 26 (end of study) ]	Enrolling by invitation  Estimated Primary Completion Date: December 31, 2020	Medium
Adipose tissue-derived mesenchymal stromal cells  Sponsor: Instituto de Investigación Sanitaria de la Fundación Jiménez Díaz	NCT04348461	Spain?	Phase 2, randomized, blinded, controlled clinical trial to assess the safety and efficacy of intravenous administration of expanded allogeneic adipose tissue adult mesenchymal stromal cells  N = 100 critically ill patients with COVID-19 randomized to either control or treatment group.	1.Efficacy of the administration of allogeneic mesenchymal stem cells derived from adipose tissue assessed by Survival Rate)  2.Safety of the administration of allogeneic mesenchymal stem cells derived from adipose tissue assessed by Adverse Event Rate	Not yet recruiting  Estimated Primary Completion Date: September 15, 2020	Medium
Human Umbilical Cord Mesenchymal Stem Cells (UC MSCs) therapy  Sponsors: Puren Hospital Affiliated to Wuhan University of Science and Technology	NCT04293692	China, Hubei	Triple blinded randomised controlled trial. N=48 with moderate-severe covid19 randomised to UC MSCs or placebo	Size of lesion area by chest imaging	Recruiting;  Estimated primary completion date/ Estimated study completion: May 1 2020/Feb 1, 2021	Medium
Human Mesenchymal Stem Cells	ChiCTR2000030138	Hainan, China	Phase 2; Randomised, double blind, placebo controlled trial	Clinical index	Not yet recruiting; From 2020-02-24 To 2020-05-31	Medium

Sponsor: Chinese PLA General Hospital	<a href="http://www.chictr.org.cn/showproj.aspx?proj=50004">http://www.chictr.org.cn/showproj.aspx?proj=50004</a>		N=60 randomised to human umbilical cord mesenchymal stem cells (UC-MSC), or placebo			
Mesenchymal stem cells Sponsor: Puren Hospital Affiliated to Wuhan University of Science and Technology	NCT04339660	China, Hubei	Randomised, double blinded, placebo-controlled trial. N=30 patients with COVID-19 randomised to mesenchymal stem cells or placebo	The immune function (TNF- $\alpha$ , IL-1 $\beta$ 、IL-6、 TGF- $\beta$ 、 IL-8、 PCT、 CRP) [ Time Frame: Observe the immune function of the participants within 4 weeks ]  Blood oxygen saturation [ Time Frame: Monitor blood oxygen saturation of the participants within 4 weeks ]	Recruiting; Estimated Primary Completion: June 30, 2020	Medium
WJ-MSC  Sponsor: Banc de Sang i Teixits	2020-001505-22	Spain	Phase 1/2, Double-blind, randomized, parallel, placebo-controlled pilot clinical trial, nested in a prospective cohort observational study, for the evaluation of the efficacy and safety of two doses of WJ-MSC in patients with acute respiratory distress syndrome secondary to infection by COVID-19.  N = 30 randomized to two doses of WJ-MSC or placebo.	All-cause mortality at day 28	Ongoing  Estimated duration of the trial: 6 months	Medium
MultiStem  Sponsor: Athersys, Inc	NCT04367077  MACoVIA	United States, Ohio (multiple sites)	Open-label lead-in followed by a double blinded, randomized, placebo-controlled phase 2/3 trial to evaluate the safety and efficacy of MultiStem <sup>®</sup> therapy in subjects with acute respiratory distress syndrome (ARDS) due to COVID-19.  N=400 subjects with moderate to severe ARDS due to covid-19 randomized to MultiStem (i.v.) or placebo.	1. Ventilator-Free Days [ Time Frame: Day 0 through Day 28. ]  2. Safety and Tolerability as measured by the incidence of treatment-emergent adverse events as assessed by CTCAE v5.0. [ Time Frame: Day 28 ]	Recruiting  Estimated Study Completion Date: August 2022	Medium
Mesenchymal stromal cells  Sponsor: Joanne Kurtzberg, MD, Duke University	NCT04399889  Pro00105410	Not stated	Phase 1/2 pilot study of safety and efficacy of cord tissue derived mesenchymal stromal cells (hCT-MSC) in COVID-19 related acute respiratory distress syndrome (ARDS)  N=30 adult with COVID-19 related acute respiratory distress syndrome (ARDS).	1. Safety of the Investigational Product. Incidence of infusion reactions measured by any one of the following: fever, anaphylaxis, rash, hypertension, hypotension, tachycardia, nausea, vomiting, or any other new or worsening symptoms associated with the infusion. [ Time Frame: 24 hours ]	Not yet recruiting  Estimated Primary Completion Date: April 1, 2021	Low

			<p>The first 10 consecutive patients will all receive investigational product. If there are no safety concerns, the trial will proceed with enrollment on the phase 2 portion of the study where the subsequent 20 patients will be randomized in a 1:1 fashion between treatment with MSCs and standard of care.</p>	<p>2. Safety of the Investigational Product. Incidence of later reactions attributed to the investigational product as measured by any one of the following: rash, infection, allergic reaction, or any other symptoms associated with infusion of the investigational product. [ Time Frame: 28 days ]</p> <p>3.Safety of the Investigational Product. Formation of new anti-PRA antibodies as measured by an antibody screen test at 28 days post first infusion of the investigational product. [ Time Frame: 28 days ]</p>		
<p>Mesenchymal Stromal Cells</p> <p>Sponsor: Ottawa Hospital Research Institute</p>	<p>NCT04400032</p> <p>CIRCA-19</p>	Canada, Ontario	<p>Phase 1, non-randomized, open label, dose-escalating and safety trial using a 3+3+3 design to determine the safety, and maximum feasible tolerated dose of repeated delivery of Bone Marrow (BM)-MSCs intravenously.</p> <p>N=9 adult patients with laboratory-confirmed SARS-CoV-2 infection and ARDS receiving repeated unit doses of BM-MSCs delivered by IV infusion. Panel 1: n=3, 25 million cells/unit dose (cumulative dose: 75 million MSCs) Panel 2: n=3, 50 million cells/unit dose (cumulative dose: 150 million MSCs) Panel 3, n=3, up to 90 million cells/unit dose (cumulative dose: up to 270 million MSCs)</p>	<p>Number of Participants With Treatment-Related Adverse Events as Assessed by CTCAE v4.0 [ Time Frame: At time of infusion until one year post-infusion</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: January 2021</p>	Low
<p>Mesenchymal Stem Cells</p> <p>Sponsor: SBÜ Dr. Sadi Konuk Eğitim ve Araştırma Hastanesi</p>	NCT04392778	Turkey	<p>Phase 1/2, double-blinded, controlled, randomized study on the Effect of Mesenchymal Stem Cell Therapy on Seriously Ill Patients With Covid 19 in Intensive Care</p> <p>N = 30, age 40-60 with confirmed Covid-19 pneumonia</p> <p>Group 1: patients not in a ventilator: no treatment</p>	<p>Clinical improvement [Time Frame: 3 months]</p>	<p>Recruiting</p> <p>Estimated Primary Completion: July 2020</p>	Low

			Group 2: patients in a ventilator: saline injections Group 3: patients in a ventilator: MSC injections			
Cymerus mesenchymal stem cells  Sponsor: Australia-based Cynata Therapeutics	Early news <a href="https://www.clinicaltrialsarena.com/news/cynata-therapeutics-covid-19-trial/">https://www.clinicaltrialsarena.com/news/cynata-therapeutics-covid-19-trial/</a>	Australia at sites in New South Wales in alliance with the Cerebral Palsy Alliance Research Institute and the Covid-19 Stem Cell Treatment (CSCT) Group investigators	Phase 2 the open-label, randomised 1:1 controlled trial will assess early efficacy of Cymerus mesenchymal stem cells to treat adult Covid-19 patients admitted to intensive care  N=24 adults admitted to intensive care due to Covid-19  Twelve patients will be given Cymerus MSC infusions	Primary endpoints will be improvement in PaO <sub>2</sub> /FiO <sub>2</sub> ratio by day 7, along with safety and tolerability up to day 28	Study approved start May 2020  Estimated primary completion not known	Low
Mesenchymal Stem Cells (MSCs)  Sponsor: University Hospital Tuebingen	NCT04377334  RESCOVID	Germany	Phase 2, randomized, open-label study to evaluate the safety, toxicity and immunological effects of infusion of MSCs and whether this therapy has an influence on the resolution processes in ARDS patients infected with Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).  N=40 COVID-19-positive subjects, Age ≥ 18 years randomized to MSCs or standard of care?? (control).	Lung injury score [ Time Frame: day 10 ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Low
Allogenic pooled olfactory mucosa-derived mesenchymal stem cells  Sponsor: Institute of Biophysics and Cell Engineering of National Academy of Sciences of Belarus	NCT04382547	Belarus	Phase 1/2, non-randomized, parallel assignment, open-label trial to evaluate the treatment of patients with Covid-19 associated pneumonia using intravenous injection of allogenic pooled olfactory mucosa-derived mesenchymal stem cells.  N=40 adult subjects with PCR-confirmed Covid-19 pneumonia and respiratory failure  Mesenchymal stem cells group: standard treatment + allogenic pooled olfactory mucosa-derived mesenchymal stem cells	Number of cured patients [ Time Frame: 3 weeks ]	Not yet recruiting  Estimated Primary Completion Date: June 30, 2021	Low

			Control group: standard treatment			
Allogeneic mesenchymal cells  Sponsor: Fundación de Investigación del Hospital Infantil Universitario Niño Jesús	EudraCT number: 2020-001450-22	Spain	A phase 2, randomized, open-label clinical trial to explore the efficacy of allogeneic mesenchymal cells from umbilical cord tissue compared to standard of care.  N = 106 patients with severe pulmonary involvement by COVID-19.	Mortality due to lung involvement due to SARS-CoV-2 virus infection at 28 days of treatment	Ongoing  Estimated Primary Completion Date: November 5, 2021	Low
Mesenchymal Stem Cells  Sponsor: Andalusian Network for Design and Translation of Advanced Therapies	NCT04366323	Not stated	Phase I/II, randomized, controlled, open-label trial to assess the safety and efficacy of intravenous administration of Allogeneic Adult Mesenchymal Stem Cells of expanded adipose tissue in patients with severe pneumonia due to COVID-19.  N=26 randomized to Mesenchymal Stem Cells or standard of care.	1. Safety of the administration of allogeneic mesenchymal stem cells derived from adipose tissue assessed by Adverse Event Rate [ Time Frame: 12 months ]  2. Efficacy of the administration of allogeneic mesenchymal stem cells derived from adipose tissue assessed by Survival Rate [ Time Frame: 28 days ]	Not yet recruiting  Estimated Study Completion Date: October 2021	Low
Mesenchymal Stem Cells (MSCs)  Sponsor: Fuzhou General Hospital	NCT04371601	China, Fujian	Early Phase 1, randomized, open-label to evaluate to the safety and effectiveness of MSCs in the treatment of pneumonia of covid-19.  N=60 patients with severe COVID-19 pneumonia randomized to MSCs + conventional symptomatic treatments (such as antiviral (oseltamivir), hormones, oxygen therapy, mechanical ventilation and other supportive therapies) or conventional symptomatic treatments only.	Changes of oxygenation index (PaO2/FiO2) ,blood gas test [ Time Frame: 12 months ]	Active, not recruiting  Estimated Study Completion Date: December 31, 2022	Low
Mesenchymal cells  Sponsor: Hospital Infantil Universitario Niño Jesús, Madrid, Spain	NCT04366271	Spain	A phase 2, randomized, open-label controlled to explore the efficacy of allogeneic mesenchymal cells from umbilical cord tissue compared to Standard of care.  N = 106 patients with severe pulmonary involvement by COVID-19	Mortality due to lung involvement due to SARS-CoV-2 virus infection at 28 days of treatment [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: July 31 2020	Low
Mesenchymal Stem Cells (MSC)  Sponsor: Royan Institute	NCT04366063	Iran	A phase 2/3 randomized, open-label trial to evaluate the safety and efficacy of Mesenchymal Stem Cells (MSC) for	1.Adverse events assessment [ Time Frame: From baseline to day 28 ] 2.Blood oxygen saturation [ Time Frame: From baseline to day 14 ]	Recruiting	Low

Sponsor: Quovadis Associazione			<p>the treatment of ARDS in COVID-19 patients.</p> <p>N = 60 patients are allocated randomly to three groups 1:1:1: Control. Conventional therapy for virus treatment and supportive care for ARDS Intervention Group 1. Patients will receive two doses of MSCs Intervention Group 2. Patients will receive two doses of MSCs plus two doses of extracellular vesicles (EVs)</p>		Estimated Primary Completion Date: 06-06-2020	
Allogenic Adipose Tissue-Derived Mesenchymal	2020-001364-29	Spain (multiple sites)	<p>Phase I/II, randomized, controlled, open-label clinical trial to evaluate the safety and efficacy of Allogenic Adipose Tissue-Derived Mesenchymal Stem Cells Expanded in patients with severe COVID-19 pneumonia</p> <p>N=26 randomized to Allogenic Adipose Tissue-Derived Mesenchymal (conc. number 80000000 to 160000000) or treatment according to clinical practice by covid-19 (Hydroxychloroquine + Azithromycin or Lopinavir / ritonavir) or Allogenic Adipose Tissue-Derived Mesenchymal expanded (conc. number 160000000 to 320000000)</p>	<p>Safety endpoints: Incidence of Adverse Events and Serious Adverse Events, related to the investigational drug or the administration procedure, graduated according to the common toxicity criteria scale (CTCAE) [12 months post-infusion].</p> <p>Efficacy endpoints: - Reduction of the SARS-CoV-2 viral load by PCR on days 6 and 15. - Mortality at day 15 and 28 - Proportion of patients in categories 5, 6 or 7 of the ordinal scale of 7 points on days 15 and 28 days - Proportion of patients needing rescue therapy (Tocilizumab, corticosteroids, or therapies under investigation in clinical trials) - Time to get an improvement in a category since admission to the ordinal scale.</p>	Ongoing  Duration: 1 year and 3 month	Low
Mesenchymal Stromal Cells	NCT04361942	Spain	<p>Phase 2, double-blind, randomized trial to evaluate safety and efficacy of allogenic mesenchymal stromal cells for treatment of acute respiratory failure in patients with COVID-19 pneumonia.</p> <p>N=24 adult subjects with severe COVID-19 pneumonia randomized to intravenous injection of 1 million MSV cells/Kg in 100 ml of saline or placebo.</p>	<p>1. Proportion of patients who have achieved withdrawal of invasive mechanical ventilation [ Time Frame: 0-7 days ]</p> <p>2. Rate of mortality [ Time Frame: 28 days ]</p>	Recruiting  Estimated Primary Completion Date: November 30, 2020	Low

Umbilical Cord Mesenchymal Stem Cells	NCT04355728	United States, Florida	Randomised open label study. N=24 intubated patients with COVID-19 randomised to Umbilical Cord Mesenchymal Stem Cells or standard of care	Incidence of pre-specified infusion associated adverse events [ Time Frame: Day 5 ] Incidence of Severe Adverse Events [ Time Frame: 90 days ]	Recruiting; Estimated Primary Completion Date: December 31, 2020	Low
Human umbilical cord mesenchymal stem cells  Sponsor: The Fifth Medical Center of PLA General Hospital, China, Beijing	ChiCTR2000031430	China, Hubei, Wuhan (multicenter)	Phase 2, prospective, open, non-randomized, parallel, 1:1 controlled clinical trial to evaluate the safety and efficacy for human umbilical cord mesenchymal stem cells in COVID-19 induced pulmonary fibrosis.  N=200 divided into treatment group and control group. (1) Treatment group: conventional treatment regimen + human umbilical cord mesenchymal stem cells (MSC) treatment, $4 \times 10^7$ / times, intravenous injection on days 0, 3, and 6 for a total of 3 times (2) Control group: conventional treatment regimen.	Several outcomes are mentioned as primary outcomes.	Recruiting  From 2020-03-14 To 2021-12-31	Low
Allogeneic Human Dental Pulp Mesenchymal Stem Cells  Sponsor: Renmin Hospital of Wuhan University	ChiCTR2000031319	China, Hubei, Wuhan	Randomized, placebo-controlled trial to evaluate the safety and efficacy of allogeneic human dental pulp mesenchymal stem cells in the treatment of severe pneumonia caused by COVID-19.  Blinding not stated.  N=20 randomized to routine treatment + Intravenous injection of human dental pulp stem cells or routine treatment + Placebo	TTCI	Not yet recruiting  From 2020-04-01 To 2020-07-31	Low
Human embryonic stem cell-derived M cells (CAStem)  Sponsor: Wuhan Jinyintan Hospital (Wuhan Infectious Diseases Hospital)	ChiCTR2000031139	China, Hubei	Study to evaluate the safety and tolerability of CAStem cells for COVID-19-related pulmonary fibrosis.  N = 20	Pulmonary function evaluation  Changes in blood gas analysis  Evaluation of activity  Evaluation of dyspnea	Recruiting  From 2020-03-20 To 2021-03-19	Low
Mesenchymal Stem Cell	NCT04349631	United States, Texas	A Phase II, Open Label, Single-Center, Clinical Trial. Single group assignment.	Incidence of hospitalization for COVID-19 [ Time Frame: Week 0 through week 26 (end of study) ]	Enrolling by invitation	Low

			N=56 participants are either over 50 years of age, have preexisting conditions, or are at high exposure risk of contracting COVID-19 will receive stem cell therapy	Incidence of symptoms for COVID-19 [ Time Frame: week 0 through week 26 (end of study) ]		
Human NK cells and MSCs transplantation	ChiCTR2000030944	Jiangxi, China	An open, multi-center, control, exploratory clinical study N=20 patients with COVID-19 randomised to human NK cells and MSCs transplantation or standard of care.	Changes of serum inflammatory factors, mortality and safety outcomes	Not yet recruiting; Estimated duration: From 2020-03-01 To 2020-08-31	Low
Mesenchymal Stem Cell	EudraCT: 2020-001266-11	Spain	Open label, randomized, controlled clinical trial with two treatment arms to evaluate the safety and efficacy of intravenous administration of expanded allogeneic adipose tissue adult mesenchymal cells in critically ill patients COVID-19. N=100 intubated patients with COVID-19	Several primary end-points are mentioned. Among others, survival at 28 days after treatment	Ongoing buy 28.04.2020 Estimated duration: 8 months	Low
Bone Marrow-Derived Mesenchymal Stem Cell (BM-MSCs)  Sponsor: Guangzhou Institute of Respiratory Disease	NCT04346368	China, Guangdong	A randomized, single-blinded, phase 1/2 controlled study.  N = 20 severe patients with COVID-19 receiving BM-MSCs or placebo.	Changes of oxygenation index (PaO <sub>2</sub> /FiO <sub>2</sub> )  Side effects in the BM-MSCs treatment group	Not yet recruiting  Estimated Study Completion Date: December 2020	Low
Mesenchymal stem cells (MSC)  Sponsor: The First Hospital of Changsha, China, Hu'nan	ChiCTR2000030866	China, Hu'nan, Changsha	Open-label, single-arm, observational study.  Intravenous infusion of MSC based on conventional treatments.  N=30 patients diagnosed as severe or critical COVID-19 or patients who have turned negative for viral nucleic acid detection but still have severe or critical manifestations	- Oxygenation index (arterial oxygen partial pressure (PaO <sub>2</sub> ) / oxygen concentration (FiO <sub>2</sub> )) [Time frame: 0 hour, 24 hours, 3 days, 6 days, 10 days, 14 days, 28 days, random /14 days after discharge, random /28 days after discharge, 3 months, 6 months, 12 months] - Conversion rate from serious to critical patients, Conversion rate and conversion time from critical to serious patients and mortality in serious and critical patients [Time frame: day 28]	Recruiting  Study execute time: 2020-02-01 to 2020-12-31	Low
Mesenchymal stem cells (MSC)  Sponsor:	ChiCTR2000030835	China, He'nan	Open label, non-randomised, clinical trial  N=20 COVID-19 patients, age 16-75  Intravenous infusion of MSC.	Primary outcome not stated.	Recruiting	Low

The First Affiliated Hospital of Xinxiang Medical University, China, He'nan			Low-dose group: 1 × 10 <sup>6</sup> MSC/kg (n = 10) High-dose group: 2 × 10 <sup>6</sup> MSC/kg (n = 10).			
Mesenchymal Stromal Cells  Sponsor: Baylor College of Medicine	NCT04345601	United States, Texas	Phase 1 open label single arm clinical trial to see if MSCs can help to treat respiratory infections caused by SARS-CoV-2.  N = 30 age > 18 patients PCR confirmed SARS-CoV-2 and mild or moderate to severe acute respiratory distress syndrome (ARDS) to be given the cell product by intravenous injection (into the vein through an IV line). Dose: 1 × 10 <sup>8</sup> MSCs.	Incidence of unexpected adverse events within 28 days following infusion of MSCs	Not yet recruiting Estimated study completion: February 2022	Low
Allogeneic Mesenchymal stemcells Product: Mesoblast holds an Investigational New Drug (IND) App from FDA for use in the treatment of patients with COVID-19 ARDS	<a href="http://investorsmedia.mesoblast.com/static-files/e63bf0d5-7dd5-c2e24bacb130">http://investorsmedia.mesoblast.com/static-files/e63bf0d5-7dd5-c2e24bacb130</a> Press release of planned study: Remestemcel-L is developed for various inflammatory conditions, by down-regulating the production of pro-inflammatory cytokines. Safety and efficacy of remestemcel-L iv infusions have been evaluated in over 1,100 patients, eg successful in a Phase 3 trial for steroid-refractory acute graft versus host disease (aGVHD) a condition similar to the cytokine storm process as is seen in COVID-19 ARDS.	USA, eventually also Europe and China	Placebo-controlled phase 2/3 study. Multicentre study Planned number of patients: 340 Placebo-controlled Phase 2/3.	Not clearly stated. Overall survival and ARDS parameters	Not yet recruiting;	Low
Stem cells	NCT04331613	Beijing, China	Phase 1/2 clinical study. Single arm study. N=9 with COVID-19	Adverse reaction (AE) and severe adverse reaction (SAE); Changes of lung imaging examinations	Recruiting;	Low

Human Embryonic Stem Cells Derived M Cells (CAStem)			Dose escalation study with 3 cohort with 3 patients in each cohort.		Estimated Primary Completion: December 2020	
Stem cell therapy	NCT04252118	China	Phase 1 Open label, non-randomised intervention study  N=20 patients with covid19 Treatment: N=10 treated with MSN N=10 treated with conventional treatment	Size of lesion area by chest radiograph or CT (time frame day 28) Side effects day (time frame day 180)	Recruiting;  Estimated primary completion date/ Estimated study completion: Dec 2020/December, 2021	Low
Stem cell therapy;  Allogenic Adipose Mesenchymal Stem Cells	NCT04276987	China	Phase 1, open label pilot study  N=30 with severe covid19, Single group assignment	Adverse reactions Time to clinical improvement (28 days)	Not yet recruiting;  Estimated primary completion: May 31, 2020	Low
Stem cell therapy; Umbilical cord mesenchymal stem cells. Sponsor: Wuhan Union Hospital, China	NCT04273646	China, Hubei	Open label, randomised study N=48 with severe covid19; Randomised to stem cell therapy or placebo	Pneumonia severity index week 0-week 12. Oxygenation index	Not yet recruiting;  Estimated primary completion: June 30 2020	Low
umbilical cord mesenchymal stem cell	ChiCTR2000029569  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49062">http://www.chictr.org.cn/showproj.aspx?proj=49062</a>	China, Hubei	Open label N=30 with severe and critical covid-19 randomised to Stem cell or conventional treatment	PSI	Not recruiting  From2020-02-05 To 2021-04-30	Low
umbilical cord blood mononuclear cells	ChiCTR2000029572  <a href="http://www.chictr.org.cn/showproj.aspx?proj=41760">http://www.chictr.org.cn/showproj.aspx?proj=41760</a>	China, Hubei	Open label N=30 with severe covid 19 randomised to Stem cell or conventional treatment	PSI	Not recruiting  From2020-02-05 To 2021-04-30	Low
Stem cell therapy; Umbilical cord- derived mesenchymal stem cells Sponsor: ZhiYong Peng	NCT04269525	China, Hubei	Phase 2, open label  N=10, serious or critical covid19	Oxygenation index day 14	Recruiting; Estimated primary completion: April 30, 2020	Low
Human Menstrual Blood-Derived Stem Cells	ChiCTR2000029606  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49146">http://www.chictr.org.cn/showproj.aspx?proj=49146</a>	Zhejiang, China	Open label, 5 arm study. Critically ill patients treated with stem cells, conventional treatment, artificial liver therapy, artificial liver therapy + stem cells, or Conventional treatment	Mortality	Recruiting;  From2020-01-15 To 2022-12-31	Low
Umbilical cord mononuclear cells	ChiCTR2000029812  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49374">http://www.chictr.org.cn/showproj.aspx?proj=49374</a>	Guangdong, China	Open label, N= 60 patients with Covid 19 randomised to umbilical cord blood mononuclear cells or conventional treatment	Time to disease recovery	Not recruiting ;  From2020-02-20 To 2021-02-20	Low

Cord Blood Mesenchymal Stem Cells	ChiCTR2000029816 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49389">http://www.chictr.org.cn/showproj.aspx?proj=49389</a>	Guangdong, China	Open label, N= 60 patients with Covid 19 randomised to Cord Blood Mesenchymal Stem Cells or conventional treatment	Time to disease recovery;	Not recruiting ;  From2020-02-20 To 2021-02-20	Low
Cord Blood NK Cells Combined with Cord Blood Mesenchymal Stem Cells	ChiCTR2000029817 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49384">http://www.chictr.org.cn/showproj.aspx?proj=49384</a>	Guangdong, china	Open label, N= 60 patients with Covid 19 randomised to High dose NK cells, and mesenchymal stem cells, Conventional dose NK cells and mesenchymal stem cells, or Preventive dose NK cells and mesenchymal stem cells.	Time to disease recovery;	Not recruiting ;  From2020-02-20 To 2021-02-20	Low
Cord Blood NK Cells Combined with Cord Blood Mesenchymal Stem Cells	ChiCTR2000029818 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49382">http://www.chictr.org.cn/showproj.aspx?proj=49382</a>	Guangdong, china	Open label, N= 60 patients with Covid 19 randomised to High dose NK cells, and mesenchymal stem cells, Conventional dose NK cells and mesenchymal stem cells, or Preventive dose NK cells and mesenchymal stem cells.	Time to disease recovery;	Not recruiting ;  From2020-02-20 To 2021-02-20	Low
mesenchymal stem cells	ChiCTR2000029990 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49674">http://www.chictr.org.cn/showproj.aspx?proj=49674</a>	Beijing, Hubei, Shanghai	Phase 1-2; N=120, Severe covid-19 randomised to mesenchymal stem cells or saline	Improved respiratory system function (blood oxygen saturation) recovery time;	Recruiting; From2020-01-30 To 2020-03-31	Low
Umbilical cord Wharton's Jelly derived mesenchymal stem cells	ChiCTR2000030088 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49902">http://www.chictr.org.cn/showproj.aspx?proj=49902</a>	Beijing, China	Type of study not stated. Blinding not stated N= 40 with critical covid-19 Treatment: stem cells (n=20) 40 ml saline (n=20)	The nucleic acid of the novel coronavirus is negative CT scan of ground glass shadow disappeared	Not yet recruiting; From2020-03-01 To 2021-12-31	Low
Wharton's Jelly Mesenchymal stem cells Sponsor: Stem Cells Arabia	NCT04313322	Jordan	Phase 1, single arm study N=5 with COVID-19	Improvement of clinical symptoms; Adverse events; Viral RNA	Recruiting.  Estimated study completion: Sept, 2020	Low
Human umbilical cord mesenchymal stem cells	ChiCTR2000030116; <a href="http://www.chictr.org.cn/showproj.aspx?proj=49901">http://www.chictr.org.cn/showproj.aspx?proj=49901</a>	Jiangxi, China	N=16 with critical covid-19; Different stem cell doses	Time to leave ventilator on day 28 after receiving MSCs infusion	Recruiting; From2020-02-01 To 2020-08-31	Low
Mesenchymal stem cells	ChiCTR2000030224 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49968">http://www.chictr.org.cn/showproj.aspx?proj=49968</a>	Hubei, China	Clinical study, open label  Severe or critical covid-19 patients; N=32 stratified severity and randomised to stem cells or injection with saline	Several primary endpoints – not specified	Not yet recruiting;  From2020-02-14 To 2020-05-31	Low

Umbilical cord mesenchymal stem cells	ChiCTR2000030300 http://www.chictr.org.cn/showproj.aspx?proj=50022	Jiangsu, China	A single-centre, single arm, prospective, open clinical study N=9	Time to disease recovery; Exacerbation (transfer to RICU) time	Recruiting; From 2020-02-19 To 2021-02-20	Low
Stem cell educator therapy	NCT04299152	?	This is a prospective, two-arm, partially masked, single center clinical study . N=20 patients with SARS-CoV-2 undergoing either stem cell therapy or conventional treatment	Number of Covid-19 patients who were unable to complete SCE Therapy [ Time Frame: 4 weeks ]	Not yet recruiting; Estimated study completion: Nov 2020	Low
Dental pulp mesenchymal stem cells	NCT04302519	?	Early phase 1, single arm study N=24 patients with severe covid-19 assigned to stem cell therapy	Disappear time of ground-glass shadow in the lungs [Time Frame: 14 days]	Not yet recruiting, Estimated study completion: July 2021	Low
Dental pulp mesenchymal stem cells	NCT04336254	Renmin Hospital of Wuhan University, China	Single-center, Prospective, Randomised Clinical Trial N=20 patients with COVID-19 randomised to stem cells or placebo	Time to Clinical Improvement	Recruiting; Estimated Primary Completion: December 31, 2020	Low
NestCell® Mesenchymal Stem Cell Sponsor: Azidus Brasil	NCT04315987	Not stated	Phase 1 /2 study N=24 patients	Disappear time of ground-glass shadow in the lungs	Not yet recruiting.  Estimated study completion: June, 2020	Low

## Cardiovascular drugs

### Angiotensin receptor blocker or ACE inhibitor

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Losartan Sponsor: University of Minnesota	NCT04312009	Minneapolis, Minnesota, United States	Randomized Controlled Trial, double blinded. N=200 hospitalised patients with COVID-19 randomised to Losartan 25 mg daily or	Sequential Organ Failure Assessment (SOFA) Respiratory Score [ Time Frame: 28 days ]	Not yet recruiting  Estimated study completion. April 1, 2021	High
Losartan Sponsor: University of Minnesota	NCT04311177	Minneapolis, Minnesota, United States	Randomized Controlled Trial, double blinded. N=516 patients with COVID-19 not requiring hospitalisation randomised to Losartan 25 mg daily or placebo	Hospital Admission [ Time Frame: 28 days ]	Not yet recruiting  Estimated study completion. April 1, 2021	High
ACE inhibitor, angiotensin receptor blocker, calcium channel blocker, thiazide	NCT04330300	Ireland	Randomised open label study. N= 2414 Patients with hypertension treated with ACE-inhibitor or ARB and who are COVID-19 naïve randomised to continue with ACEi /ARB, or Change to thiazide or CCB	Number of Covid-19 positive participants who die, require intubation in ICU, or require hospitalization for non-invasive ventilation (NIV) [ Time Frame: 12 months ]	Not yet recruiting; Estimated Primary Completion: January 31, 2021	High

Valsartan	NCT04335786 PRAETORIAN-COVID	Netherlands	A Double-blind, Placebo-controlled Randomized Clinical Trial N=651 patients hospitalised with COVID-19 randomised to valsartan or placebo	first occurrence of intensive care unit admission, mechanical ventilation or death [ Time Frame: within 14 days]	Recruiting; Estimated Primary Completion: July 2020	High
Ramipril  Sponsor: University of California, San Diego	NCT04366050	Not stated	A phase 2, randomized, double-blind, placebo-controlled trial to evaluate the efficacy of ramipril to prevent ICU admission, need for mechanical ventilation or death in persons with COVID-19  N = 560 Phase 3, double-blinded, placebo-controlled, randomized trial on the efficacy of Mycobacterium w + standard care  N = 480, Adult, COVID-19 Patients Hospitalized But Not Critically Ill randomized to Mycobacterium w + standard care or placebo + standard care	Composite of mortality or need for ICU admission or ventilator use [ Time Frame: 14 days ] Number of patients with increased disease severity [Time Frame: From baseline to Day 3, Day 7, Day 14, Day 21, Day 28 or at any time during the study till 28 days post first dosing.]	Not yet recruiting  Estimated Study Completion Date: April 2021	High
ACE inhibitor, or ARB Discontinuing angiotensin converting enzyme inhibitors (ACEi) or angiotensin II receptor blockers (ARB) Sponsor: University Hospital, Gentofte, Copenhagen	2020-001544-26 NCT04351581  RASCOVID-19	Denmark	This randomised clinical trial will investigate continued or discontinued treatment with angiotensin-converting enzyme inhibitors or angiotensin-II receptor antagonists in hospitalised patients with COVID-19 N=215 patients randomised to continuation of RAS inhibitor or discontinuation of RAS inhibitor	The primary endpoint is days alive and out of hospital within 14 days after recruitment.	Not yet recruiting; Estimated Study Completion Date: December 2020	Medium
Angiotensin II receptor blockers  Sponsor: The George Institute	NCT04394117  (CLARITY)	Australia, New South Wales	A phase 4 open-label, randomised controlled trial to examine the effectiveness of angiotensin II receptor blockers compared to standard care.  N = 605 people tested positive for COVID-19 disease.	7-Point National Institute of Health Clinical Health Score [ Time Frame: 28 Days ]	Not yet recruiting  Estimated Primary Completion Date: January 30, 2021	Medium
Stopping/replacing ACE-inhibitors (ACEI) or angiotensin receptor blockers (ARB)  Sponsor:	NCT04353596 EudraCT: 2020-001206-35 ACEI-COVID-19	Austria, Germany (multiple sites)	Phase 4, randomized, open-label, single-blinded (outcomes Assessor) trial to evaluate if stopping/replacing chronic treatment with ACEI or ARB improves outcomes in symptomatic SARS-CoV2-infected patients.	1. Combination of maximum Sequential Organ Failure Assessment (SOFA) Score and death [ Time Frame: 30 days ]  2. Composite of admission to an intensive care unit (ICU), the use of	Recruiting  Estimated Primary Completion Date: May 15, 2021	Medium

Medical University Innsbruck			N=208 subjects in chronic ( $\geq 1$ month) ACEi/ARB therapy for treatment of arterial hypertension, diabetes mellitus, heart failure or coronary artery disease and proven and symptomatic SARS-CoV2 infection $\leq 5$ days. Randomized to stopping/replacing ACEi/ARB or no intervention (which means further treatment with ACEi or ARB).	mechanical ventilation, or all-cause death [ Time Frame: 30 days ]		
ACEi / ARB Sponsor: University of Pennsylvania	NCT04338009	Not stated	Open label randomised controlled trial. N=152 patients with COVID-19 treated with ACEi or ARB as an outpatient prior to hospital admission. Patients are randomised to continuation or discontinuation with ACEi or ARB	Hierarchical composite endpoint [ Time Frame: Up to 28 days ] The primary endpoint of the trial will be a global rank score that ranks patient outcomes according to four factors: (1) time to death, (2) the number of days supported by invasive mechanical ventilation or extracorporeal membrane oxygenation (ECMO), (3) the number of days supported by renal replacement therapy or pressor/inotropic therapy, and (4) a modified sequential Organ Failure Assessment (SOFA) score.	Not yet recruiting; Estimated Primary Completion: December 31, 2020	Medium
ACEi/ARB discontinuation	NCT04329195	France	Randomised open label study. N=554 patients treated with ACEi or ARB randomised to discontinuation or continuation with RAS blocker	Time to clinical improvement from day 0 to day 28	Recruiting; Estimated primary completion: May 9, 2020	Medium
ARB or ACE inhibitor Sponsor: Neuromed IRCCS	NCT04318418	IRCCS Neuromed, Department of Epidemiology and Prevention, Pozzilli, Italy	Observational case control study N=5000	Severe COVID-19	Estimated Primary Completion: April 2020	Medium
ARB/ACEi	ChiCTR2000030453 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50381">http://www.chictr.org.cn/showproj.aspx?proj=50381</a>	Zhejiang, China	Single arm study N=100 treated with angiotensin receptor blocker /angiotensin converting enzyme inhibitor	ratio of severe cases	Not yet recruiting;  No estimated end-date	Low
Angiotensin Receptor Blockers Sponsor: Sharp HealthCare	NCT04340557	Several Sharp hospitals, California, United States	Open label, randomised, controlled trial. N=200 patients with mild to moderate COVID-19 randomised to losartan or standard treatment	Mechanical ventilation [ Time Frame: from date of patient admission to date of patient discharge or date of death, whichever came first, assessed up to 45 days ]	Recruiting; Estimated Primary Completion: October 6, 2020	Low
ACE inhibitor	NCT04345406	Egypt	Open label randomized controlled trial	number of patients with virological cure [ Time Frame: 6 months ]	Not yet recruiting;	Low

			N=60 patients with COVID-19 randomised to ACEI or conventional treatment		Estimated Primary Completion: December 1, 2029?	
Influenza vaccine, ACE inhibitors (ACEI) and Angiotensin Receptor Blocker (ARB)  Sponsor: Consorci Sanitari de Terrassa	NCT04367883	Spain	Observational study of Influenza Vaccination (in patients who were vaccinated previously) and treatment with ACEI and ARB in the evolution of Covid-19 infection  N = 2574, all ages, all hospital incomes admitted to Hospital of Terrassa from March 1, 2020  The treatment most favourable in the first step of the study (ARB or ACEI) will be added randomly to new incoming patients with Covid-19 infection and results will be compared to a control group of incoming patients	Hospital output and length of ICU admission [Time Frame: from March 1, 2020]	Recruiting  Estimated primary Completion Date: July 30, 2020	Low
Losartan	NCT04335123	United States, Kansas	Single arm study N=50 patients with COVID-19	Number of participants with treatment-related adverse events as assessed by protocol definition of AE	Recruiting; Estimated Primary Completion Date September 2020	Low
Telmisartan Sponsor: Laboratorio Elea S.A.C.I.F. y A.	NCT04355936	Argentina	Open label randomised trial. N=400 patients with COVID-19 randomised to telmisartan or standard of care	Need for supplementary oxygen [ Time Frame: Within 15 days after enrollment ] Blood oxygen saturation below 93 %	Recruiting; Estimated Primary Completion Date October 1, 2020	Low
Telmisartan  Sponsor: University of Hawaii	NCT04360551	United States, Hawaii	Phase 2, randomized, double-blind, placebo-controlled pilot clinical trial of the safety and efficacy of Telmisartan for the mitigation of pulmonary and cardiac complications in COVID-19 patients.  N=40 randomized to Telmisartan (40 mg po daily x 21 days) or placebo.	Maximum clinical severity of disease [ Time Frame: Over the 21 day period of study ]	Not yet recruiting  Estimated Primary Completion Date: June 30, 2021	Medium
Captopril Nebulization Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04355429 (CAPTOCOVID)	France	Open label randomised phase 2 study. N=230 randomised to captopril or standard of care	14-day ventilation free survival	Not yet recruiting; Estimated Primary Completion: July 2020	Low
Suspension of Angiotensin Receptor Blockers and Angiotensin-converting Enzyme Inhibitors	NCT04364893	Brazil	A randomized open-label trial to evaluate the impact of the suspension of the use of angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (BRA) on	Median days alive and out of the hospital [ Time Frame: 30 days ]	Recruiting  Estimated Study Completion Date: December 1, 2020	Low

Sponsor: D'Or Institute for Research and Education			the length of hospital stay and on the mortality of patients with SARS-CoV2 infection  N = 500 hospitalized patients			
Aliskiren and Nifedipine  Sponsor: West China Hospital, Sichuan University	ChiCTR2000032314	China: Sichuan, Hubei	Randomized trial to evaluate the efficacy and safety of Aliskiren in COVID-19 patients with hypertension.  Blinding not stated.  N=242 randomized to Aliskiren with Standard Care or Nifedipine with Standard Care.	- Improvement rate and time required for improvement (hours) - Clinical status decrease by two levels - Pulmonary-related mortality - All-cause mortality	Recruiting  From 2020-03-01 To 2020-12-31	Low

## Other

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Spironolactone  Sponsor: Istanbul University-Cerrahpasa	NCT04345887	Turkey, Istanbul	Phase 4, triple-blinded, randomized trial to evaluate the effects of commonly used diuretic, spironolactone, on oxygenation in covid-19 ARDS patients.  N=60 randomized to Spironolactone (2x100mg for 5 days) or placebo.	p/f ratio [ Time Frame: 5 days ] improvement in oxygenation	Not yet recruiting  Estimated Primary Completion Date: July 21, 2020	Medium
Amiodarone and Verapamil  Sponsor: Nicolaus Copernicus University	NCT04351763  (ReCOVery-SIRIO)	Poland	A phase 2/3, randomized, single-blinded study investigate amiodarone or verapamil compared with usual care.  N = 804 symptomatic patients hospitalized with confirmed COVID-19 infection. 3 arms: experimental (amiodarone), experimental (verapamil) and no intervention (usual care)	Clinical improvement [ Time Frame: Randomization to day 15 ]	Recruiting  Estimated Study Completion Date: April 10, 2021	Medium
Prazosin  Sponsor: Johns Hopkins University	NCT04365257	United States, Maryland	A phase 2, randomized, open-label trial to assess the efficacy and safety of prazosin to prevent cytokine storm syndrome and severe complications.  N = 220 hospitalized positive SARS-CoV-2 patients randomized in a 1:1 ratio to	1.Death 2.Hospitalized, requiring mechanical ventilation and/or high flow nasal cannula and/or ICU/CCU admission (or equivalent) and/or ECMO 3.Hospitalized, requiring supplemental oxygen, not requiring ICU/CCU level	Not yet recruiting  Estimated Study Completion Date: December 2020	Medium

			receive either prazosin or standard of care.	care (or interventions listed under Outcome 2) 4.Cumulative incidence of grade 3 and 4 adverse events 5.Number of participants with serious adverse events 6.Incidence of symptomatic hypotension or hypotension requiring cessation of prazosin		
Ifenprodil (NP-120)  Sponsor: Algenon Pharmaceuticals	NCT04382924	Canada	Phase 2/3, open-label, controlled, randomized trial on the efficacy of NP-120 (Ifenprodil) for hospitalized patients with Covid-19  N = 462, hospitalized with confirmed Covid-19 infection requiring supplemental oxygen randomized to Ifenprodil + standard care or standard care alone	Patient clinical status (on the WHO 7-point ordinal scale) at day 15 in IP versus SOC control group patients: [Time Frame: Day 15]	Not yet recruiting  Estimated primary Completion: January 2020	medium
Ifenprodil NP-120 (Ifenprodil) is an N-methyl-D-aspartate (NMDA) receptor antagonist specifically targeting the NMDA-type subunit 2B (Glu2NB). Ifenprodil prevents glutamate signalling. The NMDA receptor is found on many tissues including lung cells and T-cells, neutrophils.  The Company believes NP-120 can reduce the infiltration of neutrophils and T-cells into the lungs where they can release glutamate and cytokines respectively.  Sponsor: Algenon Pharmaceuticals Inc	Early news <a href="http://thestocksmarket.net/2020/04/22/algenon-submits-application-to-health-canada-for-ifenprodil-covid-19-phase-2b-3-multinational-clinical-trial/">http://thestocksmarket.net/2020/04/22/algenon-submits-application-to-health-canada-for-ifenprodil-covid-19-phase-2b-3-multinational-clinical-trial/</a>  <a href="https://pennystocks.com/penny-stock-news/2020/04/23/algenon-receives-regulatory-and-ethics-approval-for-phase-2-ifenprodil-covid-19-human-study-in-south-korea/">https://pennystocks.com/penny-stock-news/2020/04/23/algenon-receives-regulatory-and-ethics-approval-for-phase-2-ifenprodil-covid-19-human-study-in-south-korea/</a>	South Korea	Phase 2b/3 Study 100 patients with moderate/severe disease, will be randomized in a 1:1 fashion to receive either standard of care (SOC) or SOC and Ifenprodil (20 mg three times per day) for a two-week treatment period.	An improvement in the ordinal clinical scale	Not stated	Low

Atorvastatin  Sponsor: Mount Auburn Hospital	NCT04380402	Not stated	A phase 2 randomized open-label trial to assess whether adjunctive therapy of COVID-19 infection with atorvastatin reduces the deterioration in hospitalized patients and improves clinical outcome compared to standard care  N = 300	Deterioration in clinical status [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2021	Low
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## Blood and blood forming organs

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Alteplase  Sponsor: Denver Health and Hospital Authority	NCT04357730  (STARS)	Not stated	A phase IIa, randomized, open-label clinical trial with two intravenous (IV) tPA treatment arms and a control arm to test the efficacy and safety of IV tPA in improving respiratory function and oxygenation  N = 60 patients infected with COVID-19 resulting in severe respiratory failure	PaO <sub>2</sub> /FiO <sub>2</sub> improvement from pre-to-post intervention [ Time Frame: at 48 hours post randomization ]	Not yet recruiting  Estimated primary Completion Date: August 2020	Low
Aspirin  Sponsor: Louisiana State University Health Sciences Center in New Orleans	NCT04363840  The LEAD COVID-19 Trial	Not stated	A phase 2, multi-center, open-label, randomized controlled trial to test the hypothesis that low-risk, early treatment with aspirin and vitamin D in COVID-19 can mitigate the prothrombotic state and reduce hospitalization rates  N = 1080. 3 arms: No Intervention: Observation Experimental: Aspirin Experimental: Aspirin + vitamin D	Hospitalization [ Time Frame: 2 weeks ]	Not yet recruiting  Estimated Study Completion Date: December 2020	Medium
Aspirin  Sponsor: Xijing Hospital	NCT04365309	China, Shaanxi	Phas 2/3, randomized, open-label trial to evaluate the protective effect of Aspirin in covid-19 patients.  N=128 subjects with common and severe covid-19 pneumonia randomized to standard treatment or aspirin (100 mg/d, oral) + standard treatment.	Clinical recovery time (TTCR) [ Time Frame: not more than 14 days ]	Enrolling by invitation  Estimated Study Completion Date: April 2020	Medium

<p><b>Defibrotide</b> Sponsor: IRCCS San Raffaele Prof. Ciceri Fabio</p>	NCT04335201	Italy	<p>Phase 2 Prospective, interventional, single-arm, multicentric, open label trial with a parallel retrospective collection of data on not treated patients with Defibrotide Use of Defibrotide to Reduce Progression of Acute Respiratory Failure Rate in Patients With COVID-19 Pneumonia</p> <p>N= 50 patients in the single arm with documented COVID-19 pneumonia and onset of pneumonia &lt;14 days</p> <p>Patients in the single arm will be dosed with Defibrotide (25 mg/kg body weight total) in 2 hours duration infusion each, every 6 hours (Defibrotide 6.25 mg/kg body weight each dose) Treatment duration = 7 days</p>	<p>Primary endpoint: To demonstrate that the treatment with Defibrotide administered intravenously in addition to the best available therapy according to institutional guidelines is able to reduce the progression of acute respiratory failure, the need of mechanical ventilation, the transfer to the intensive care unit or death, in patients with severe COVID-19 pneumonia.</p>	<p>Not yet recruiting; Estimated Primary Completion: September 30, 2020</p>	Low
<p>Defibrotide Sponsor: Fundacion para la Formacion e Investigacion Sanitarias de la Region de Murcia</p>	NCT04348383  (DEFACOVID)	Spain	<p>A phase IIb, multi-center, randomized, double-blinded, placebo controlled trial to evaluate defibrotide intravenous infusion in the prevention and treatment of COVID-19 respiratory distress and cytokine release syndrome.</p> <p>N = 120 COVID-19 positive patients with WHO grades 4, 5 or 6.</p>	<p>Mortality rate [ Time Frame: : up to 30 days ]</p>	<p>Recruiting  Estimated primary Completion Date: July 8, 2020</p>	Medium
<p><b>Tranexamic acid</b> Sponsor: University of Alabama at Birmingham</p>	NCT04338126	United States, Alabama	<p>Randomized, placebo-controlled, double-blind Phase 2 clinical trial N=60 hospitalised patients (non-ICU) randomised to tranexamic acid, or placebo</p>	<p>Admission to Intensive Care Unit [ Time Frame: Randomization to 7 days after randomization ]</p>	<p>Not yet recruiting; Estimated Primary Completion: October 15, 2020</p>	High
<p><b>Tranexamic acid</b> Sponsor: University of Alabama at Birmingham</p>	NCT04338074	United States, Alabama	<p>Randomized, placebo-controlled, double-blind phase 2 trial. N=100 outpatients with COVID-19 randomised to tranexamic acid or placebo</p>	<p>Hospitalization [ Time Frame: Randomization to 7 days after randomization ]</p>	<p>Not yet recruiting; Estimated Primary Completion: October 15, 2020</p>	High
<p><b>Tinzaparin</b> or unfractionated heparin (active anticoagulation)</p>	NCT04344756  CORIMMUNO-COAG	France	<p>A phase 2 randomized open-label multicenter controlled clinical trial, where patients will be randomly allocated to anticoagulation versus Standard of Care.</p>	<p>Group 1: Survival without ventilation (VNI or mechanical ventilation) [ Time Frame: day 14 ]</p>	<p>Not yet recruiting</p>	High

Sponsor: Assistance Publique - Hôpitaux de Paris			N = 808 participants. 2 parallels arms, 1:1, stratified on disease severity. Group 1 : patients not requiring ICU Group 2 : Respiratory failure AND requiring mechanical ventilation	Group 2: Ventilator free survival [ Time Frame: day 28 ]	Estimated primary Completion Date : July 31, 2020	
Anticoagulation  Sponsor: NYU Langone Health	NCT04359277	United States, New York	A phase 3, randomized open label trial to compare effectiveness of two dosing regimens currently used for prevention of clotting events in COVID-19 positive inpatients  N = 1000 hospitalized COVID-19 positive patients with a D-dimer >500 ng/ml. Patients will be randomized to higher-dose anticoagulation versus lower-dose (e.g. prophylactic-dose) anticoagulation in 1:1 ratio.	1.All-cause mortality 2.Incidence of Cardiac Arrest 3.Incidence of symptomatic Deep Venous Thrombosis 4.Incidence of Pulmonary Embolism 5.Incidence of Arterial thromboembolism 6.Incidence of myocardial infarction 7.Incidence of hemodynamic shock	Recruiting  Estimated Study Completion Date: April 16, 2021	Medium
Antitrombin  Fundación para la Investigación Biomédica de Córdoba	2020-001659-42	Spain	Randomised, open label, clinical trial. N=46 patients with confirmed SARS-CoV-2 respiratory infection with poor prognostic factors randomized to antithrombin or Best available treatment at site	Combined variable: mortality or worsening rate with need for non-invasive mechanical ventilation or with need for invasive mechanical ventilation.	Ongoing by 28.04.2020. Estimated study duration: 6 months	Low
Dipyridamide  Sponsor: Yogendra Kanthi	ChiCTR2000030055  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49864">http://www.chictr.org.cn/showproj.aspx?proj=49864</a>	Guangdong, Hubei, Zhejiang ,China	Phase 4, blinding not stated. N=460 patients with suspected corona infection but not 2019-nCoV pneumonia patients... Randomised to dipyridamide, or Conventional treatment	Several primary outcomes	Recruiting; From 2020-02-10 To 2020-04-10	Low
Dipyridamide  Sponsor: Yogendra Kanthi	NCT04391179  DICER  HUM00179783	United States, Michigan	Phase 2, randomized, single-blinded trial to to evaluate whether 14 days of treatment with dipyridamide will reduce excessive blood clotting in COVID-19.  N=80 patients with confirmed coronavirus (SARS-CoV)-2 infection and admitted to University of Michigan randomized to dipyridamide (100 mg po qid) or placebo.	Change in D-dimer [ Time Frame: baseline, up to approximately 28 days after last study drug administration ]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Medium

Dociparstat sodium  Sponsor: Chimerix	NCT04389840	Not stated	Phase 2/3, randomized, double-blind, placebo-controlled study to evaluate the safety and efficacy of Dociparstat sodium in patients with Acute Lung Injury (ALI) due to COVID-19.  N=524 subjects with confirmed COVID-19 who require hospitalization and supplemental oxygen therapy randomized 1:1 to Dociparstat sodium or placebo.	Proportion of participants who are alive and free of invasive mechanical ventilation [ Time Frame: Through Day 28 ]	Not yet recruiting  Estimated Primary Completion Date: February 2021	Medium
Enoxaparin  Sponsor: University Hospital, Geneva	NCT04345848  COVID-HEP	Switzerland	Phase 3, Randomized, single-blinded (outcomes Assessor) trial.  N=200 hospitalized adults with severe COVID-19. Randomized to therapeutic doses of enoxaparin or prophylactic doses of enoxaparin.	Composite outcome of arterial or venous thrombosis, disseminated intravascular coagulation and all-cause mortality [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: November 30, 2020	Medium
Enoxaparin  Sponsor: Niguarda Hospital	EudraCT: 2020-001708-41 NCT04366960	Italy (multicentre)	Phase 3, open-label, prospective controlled randomized trial to determine whether a higher dose of low molecular weight heparin (enoxaparin 40 mg b.i.d.) is superior than the standard prophylaxis dose (enoxaparin 40 mg o.d.) in reducing thromboembolic events in COVID-19 patients  N=2712 patients randomized 1:1 to 40 mg subcutaneous enoxaparin o.d. versus 40 mg enoxaparin b.i.d within 12 hours after hospitalization.	Incidence of venous thromboembolism detected by imaging [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: August 2020	Medium
Enoxaparin, Heparin  Sponsor: Columbia University	NCT04367831	United States, New York	Phase 4, cluster randomized, single blinded (outcomes assessor) trial to evaluate the effectiveness of intermediate versus prophylactic doses of anticoagulation in patients critically ill with COVID-19 in the intensive care units (ICUs) throughout the hospital.  N=100 randomized to intermediate-dose anticoagulation or prophylactic dose anticoagulation.	Total Number of Patients with Clinically Relevant Venous or Arterial Thrombotic Events in ICU [ Time Frame: Discharge from ICU or 30 days ]	Not yet recruiting  Estimated Study Completion Date: April 2021	Medium

Enoxaparin Thromboprophylaxis  Sponsor: University of Iowa	NCT04360824	Not stated	Phase 4, randomized, open-label study comparing standard prophylactic dose enoxaparin (standard of care arm) versus intermediate-dose enoxaparin to evaluate safety and efficacy of prophylactic anticoagulation therapy  N = 170 hospitalized patients.	Mortality [ Time Frame: 30 Days post intervention ]	Not yet recruiting  Estimated Study Completion Date: April 16, 2021	Medium
Enoxaparin  Sponsor: University of Zurich	NCT04400799  OVID Trial	Switzerland?	Phase 3, multicenter, randomized, open-label trial to evaluate whether a prophylactic-dose enoxaparin improves survival and reduces unplanned hospitalizations in ambulatory patients aged 50 or older diagnosed with COVID-19.  N=1000 randomized to enoxaparin 40 mg sc qD or no treatment for a total of 14 days.	1. hospitalizations [ Time Frame: 30 days ]  2. all-cause death [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: March 14, 2021	Medium
Enoxaparin  Sponsor: Northwell Health	NCT04401293	United States	Phase 3 open-label multi-center randomized active control trial with pseudo-blinding.  Two arms Prophylactic compared with an active comparator (Prophylactic/Intermediate Dose LMWH or UFH therapy)  N=308 adults with confirmed COVID-19 and hospitalized with a requirement for supplemental oxygen.	Composite outcome of arterial thromboembolic events, venous thromboembolic events and all-cause mortality at Day 30 ± 2 days. [ Time Frame: Day 30 ± 2 days ]  Risk of arterial thromboembolic events (including myocardial infarction, stroke, systemic embolism), venous thromboembolism (including symptomatic deep vein thrombosis (DVT) of the upper or lower extremity, asymptomatic proximal DVT of the lower extremity, non-fatal pulmonary embolism (PE)), and all-cause mortality at Day 30 ± 2 days.	Recruiting  Estimated Primary Completion Date: October 22, 2020	Medium
Enoxaparin sodium, Unfractionated heparin, Fondaparinux and Argatroban  Sponsor: Weill Medical College of Cornell University	NCT04406389  The IMPACT Trial	United States, New York	Phase 4, randomized, open-label trial to determine if therapeutic dose anticoagulation (experimental group) improves 30-day mortality in participants with COVID-19 compared to those patients receiving the intermediate dose prophylaxis (control group).  N=186 adult COVID-19 patients randomized 1:1 to intermediate dose	30-day mortality [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Medium

			prophylaxis (Enoxaparin sodium, Unfractionated heparin and Fondaparinux) OR therapeutic dose anticoagulation (Enoxaparin sodium, Unfractionated heparin, Fondaparinux and Argatroban)			
Enoxaparin Sponsor: Central Hospital, Nancy, France	NCT04373707	France	A phase 4, randomized, open-label controlled trial to evaluate the effectiveness of weight-adjusted prophylactic low molecular weight heparin doses compared with lower fixed prophylactic doses to prevent venous thromboembolism in COVID-2019  N = 602 hospitalized adults with COVID-19 infection randomized 1:1 to weight-adjusted prophylactic dose vs. lower prophylactic dose of LMWH.	Venous thromboembolism [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: September 2020	Medium
Enoxaparin Sponsor: Massachusetts General Hospital	NCT04377997	United States?	A phase 2, randomized, open-label trial of therapeutic anticoagulation  N = 300 COVID-19 patients with an elevated d-dimer	Number of patients with the composite efficacy endpoint of death, cardiac arrest, symptomatic deep venous thrombosis, pulmonary embolism, arterial thromboembolism, myocardial infarction, or hemodynamic shock. [ Time Frame: 12 weeks ]	Not yet recruiting  Estimated Primary Completion Date: January 1, 2021	Medium
Rivaroxaban and Enoxaparin Sponsor: Brazilian Clinical Research Institute	NCT04394377  (ACTION)	Brazil?	A phase 4, single-blinded, randomized clinical trial to evaluate a routine full anticoagulation strategy in patients with coronavirus (COVID-19) compared to usual standard of care with prophylactic anticoagulation.  N = 600 patients admitted to the hospital with confirmed COVID-19 infection and elevated D-Dimer.	Hierarchical composite endpoint composed of mortality, number of days alive, number of days in the hospital and number of days with oxygen therapy at the end of 30 days. [ Time Frame: In 30 days ]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Medium
Rivaroxaban Sponsor: Charite University, Berlin, Germany	NCT04416048  2020-002282-33  COVID-PREVENT	Germany	Phase 3, multi-center, randomized, open-label study to evaluate the effect of anticoagulation therapy on clinical outcomes in moderate to severe COVID-19.  N=400 patients with moderate to severe COVID-19 randomized to Rivaroxaban or standard of care.	Composite endpoint of venous thromboembolism (DVT and/or fatal or non-fatal PE), arterial thromboembolism, new myocardial infarction, non-hemorrhagic stroke, all-cause mortality or progression to intubation and invasive ventilation [ Time Frame: 35 days post randomization ]	Not yet recruiting  Estimated Primary Completion Date: April 30, 2021	Medium

Enoxaparin  Sponsor: Azienda Ospedaliero- Universitaria di Modena	NCT04408235  2020-001972-13	Italy	Multicentre, randomised controlled, open label, two arms study.  N=300 hospitalized patients with severe COVID-19 pneumonia and coagulopathy not requiring invasive mechanical ventilation  Randomisation to Low-Dose LMWH (Enoxaparin 4000 IU daily) or High-dose LMWH (Enoxaparin 70 IU/kg twice daily)	Clinical worsening, defined as the occurrence of at least one of the following events, whichever comes first: [ Time Frame: through study completion, up to 30 days ] a. Death b. Acute Myocardial Infarction [AMI] c. Objectively confirmed, symptomatic arterial or venous thromboembolism [TE] d. Need for either non-invasive - Continuous Positive Airway Pressure (Cpap) or Non-Invasive Ventilation (NIV) - or invasive mechanical ventilation for patients, who are in standard oxygen therapy by delivery interfaces at randomisation e. Need for invasive mechanical ventilation for patients, who are in non- invasive mechanical ventilation at randomisation	Not yet recruiting  Estimated Primary Completion Date: June 2021	Medium
Enoxaparin Sponsor: Union Hospital affiliated to Tongji Medical College of Huazhong University of Science and Technology	ChiCTR2000030700	China, Hubei	Open-label, randomized, parallel trial.  N=60 hospitalized adult COVID-19 patients randomized 1:1 to Enoxaparin Sodium injection and standard treatment or standard treatment.	Time to Virus Eradication	Not yet recruiting (updated 2020-03-10)  Study execute time: 2020-03-09 to 2020- 09-30	Low
Enoxaparin  Sponsor: Prof. Pierluigi Viale	EudRACT: 2020-001308- 40	Bologna, Italy	Phase II single-arm interventional prospective pilot study  N=100 in the intervention arm  Interventional group treated with enoxaparin once daily: 60 mg/day BW 45 to 60 kg 80 mg/day BW 61 to 100 kg 100 mg/day BW >100 kg  Observational/control group treated with enoxaparin 40mg once daily.	All cause 30-day mortality	Recruiting;  Safety analysis after first 50 patients in the interventional study arm	Low
Enoxaparin  Sponsor: Neil Goldenberg, Johns Hopkins All Children's Hospital	NCT04354155  COVAC-TP	United States, Florida	Phase 2, single-group assignment, open-label trial to evaluate the safety, dose-requirements, and exploratory efficacy of twice-daily subcutaneous enoxaparin as venous	1.Safety of in-hospital thromboprophylaxis [ Time Frame: Day 30 ]	Not yet recruiting  Estimated Primary Completion Date: September 15, 2022	Low

			thromboembolism prophylaxis in children hospitalized with SARS-CoV-2.  N=38 hospitalized children (birth to <18), positive SARS-CoV-2 test, signs and/or symptoms of SARS-CoV-2 infection.			
Heparin	ChiCTR2000030946	Guangdong, China	Non-randomised trial. N=120 allocated 2:1 to heparin or mechanical prevention	The biochemical indicators	Recruiting;  Estimated duration: From 2020-02-10 To 2020-04-10	Low
Heparin  Sponsor: University of Manitoba	NCT04372589	Canada, Ontario	Open-label, randomized, multicentre, clinical trial to evaluate the efficacy of therapeutic-dose parenteral heparin versus usual care.  N = 3000 hospitalized COVID-19 patients	1.Intubation [ Time Frame: 30 days ]  2.Mortality [ Time Frame: 30 days ]	Not yet recruiting  Estimated Study Completion Date: January 2021	Medium
Low molecular weight heparin (LMWH), unfractionated heparin (UFH, high dose nomogram).  Sponsor: St. Michael's Hospital, Toronto	NCT04362085	Canada, USA (multi-centre)	Phase 3, parallel, open-label randomized controlled trial.  N=462 hospitalized covid-19 patients ≥18 randomized to therapeutic anticoagulation or standard care.  The treatment arm is therapeutic anticoagulation with LMWH or UFH. The choice of LMWH versus UFH will be at the clinician's discretion	Composite outcome of ICU admission (yes/no), non-invasive positive pressure ventilation (yes/no), invasive mechanical ventilation (yes/no), or all-cause death (yes/no) up to 28 days. [ Time Frame: Up to 28 days ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Medium
Products: 1. Low Molecular Weight Heparin (enoxaparin) LMWH 2. Unfractionated Heparin UFH 3. Steroids (methylprednisolone)  Sponsor:	EudraCT number: 2020-001921-30 (according to protocol)  Not in the EU Trials Register yet  Short Title: STAUNCH-19 (STeroids And UNfractionated Heparin in covid-19 patients)	Italy	Phase 3 A multicenter, national, interventional, open label, randomized 1:1:1, investigator sponsored, three arms study. The three treatment arms are: 1. LMWH 2. LMWH + steroids 3. UFH + steroids  N= 70 patients in each treatment arm with critically-ill pneumonia from COVID- 19 infection	Primary objective: To assess the hypothesis that an adjunctive therapy with steroids and unfractionated heparin or with steroids and molecular weight heparin (LMWH) are more effective in reducing any-cause mortality in critically-ill patients with pneumonia from COVID- 19 infection compared to low molecular weight heparin (LMWH) alone.  Primary endpoint: All-cause mortality at day 28.	Primary completion date best guess July/August 2020  Please be aware an interim will be made when 50% has completed	Medium

University Hospital of Modena, L.go del Pozzo, 71, 41100 Modena- Italy Prof. Massimo Girardis						
Heparin  Sponsor: Frederick Health	NCT04397510  FHHep518	Not stated	Phase 4, randomized, placebo-controlled, blinded study to determine if nebulized heparin may reduce the severity of lung injury caused by COVID-19.  N=50 adult subjects admitted to ICU with positive COVID-19 PCR, mechanical ventilation for ≤ 48 hours and PaO <sub>2</sub> /FiO <sub>2</sub> ≤300. Randomized to nebulized Heparin or placebo.	Mean daily PaO <sub>2</sub> to FiO <sub>2</sub> ratio [ Time Frame: 10 days ]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2020	Medium
Heparin  Sponsor: Fundación Neumosur	EudraCT number: 2020-001891-14	Spain	A phase 2, randomized, open-label clinical trial to assess the impact of treatment with low molecular weight heparins using prophylactic versus intermediate doses.  N = 140 patients admitted with SARS-CoV2 infection.	Need for oxygen therapy escalation due to oxygen saturation (Sat O <sub>2</sub> ) ≤92% with inspired fraction of oxygen (FiO <sub>2</sub> ) ≥0.5 and respiratory rate (FR) ≥30 (IROX index = SatO <sub>2</sub> / FiO <sub>2</sub> ) / FR <5.5) or invasive mechanical ventilation or mortality during admission.	Ongoing  Estimated Primary Completion Date: August 5, 2020	Low
Nafamostat  Short-acting anticoagulant  Sponsor: University Hospital Padova	NCT04352400  RACONA Study	Italien, Japan og Schweiz???	Randomized, double blind, placebo-controlled parallel-group trial to assess the efficacy of the transmembrane protease serine 2 (TMPRSS2) inhibitor Nafamostat  N=256 hospitalized, COVID-19 positive, age between 18 and ≤ 85 years. Randomized to Nafamostat mesylate on top of best standard of care or placebo on top of best standard of care.	Time-to-clinical improvement [ Time Frame: day 1 until day 28 ] Time from randomization to an improvement of two points (from the status at randomization) on a 7 category ordinal scale or live discharge from the hospital, whichever came first	Not yet recruiting  Estimated Primary Completion Date: December 2021	High
Ilomedin	2020-001296-33 COMBAT-COVID-19	Denmark	Efficacy and safety of 72-hour infusion of Prostacyclin (1 ng/kg/min) in patients with COVID-19 induced respiratory failure – a multicentre randomized, placebo-controlled, blinded, investigator-initiated trial	Days alive without mechanical ventilation in the ICU at day 28	Estimated primary completion. May 2021	High

			N=80 Adult intensive care patients (aged 18 years or above) Confirmed COVID-19 infection Need for mechanical ventilation Endothelial biomarker (sTM) > 10 ng/mL			
<b>Plasminogen Activator</b> Nebulised recombinant tissue-Plasminogen Activator (rt-PA)  Sponsor: University College, London	NCT04356833	Not stated	A non-randomized, open label, phase II trial of Nebulised Recombinant Tissue-Plasminogen Activator (Rt-PA).  N = 24. The first 12 consented patients will receive nebulised rt-PA in addition to standard of care (SOC). The second group of 12 patients will receive SOC alone as a comparison	Treatment efficacy - Percentage change in PaO <sub>2</sub> /FiO <sub>2</sub> ratio [ Time Frame: 144 hours ]	Not yet recruiting  Estimated Study Completion Date: January 14, 2021	Low
<b>Prolongin</b> (Enoxaparin Sodium Injection)  Sponsor: The Third People's Hospital of Shenzhen	ChiCTR2000030701	China, Guangdong	A randomized, parallel controlled open-label trial.  N = 30 hospitalized adult patients with novel coronavirus pneumonia.	Time to Virus Eradication	Not yet recruiting  From 2020-03-10 To 2020-09-30	Low
<b>Tirofiban,</b> Clopidogrel, Acetylsalicylic acid, Fondaparinux  Sponsor: University of Milan	NCT04368377	Italy	Phase 2b, Open-label trial on IV Tirofiban, Clopidogrel, Acetylsalicylic acid and Fondaparinux in critically ill patients with Covid-19  N = 5, Age ≥ 18, Covid-19 infected with acute severe hypoxic respiratory failure, D-Dimer value ≥ 3 times the upper level of normal	P/F ratio, PaO <sub>2</sub> difference, 3.A-a O <sub>2</sub> difference [Time Frame: At baseline and 24, 48 and 168 hours after treatment initiation]	Completed  Study Completion Date: April 23, 2020	Low
<b>Ulinastatin</b>  A multivalent Kunitz-type serine protease inhibitor derived from human urine, with potential protective, anti-fibrinolytic and anticoagulant activities.	ChiCTR2000032135	Shanghai, China	Parallel clinical trial N= 50 with mild, severe or critical cases of COVID-19 stratified by severity and randomized to ulinastatin or standard of care	mild cases: the critical illness rate of subjects at weeks 2 Severe or critical cases: the Changes of PaO <sub>2</sub> /FiO <sub>2</sub> from baseline to day 1, 3, 5 and 24 hours later after the last administration	Pending; From 2020-04-22 To 2020-12-31	Low

## ACE-2

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
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Recombinant human angiotensin-converting enzyme 2 Sponsor: APEIRON Respiratory Therapies GmbH	EudraCT: 2020-001172-15 NCT04335136 APN01-01-COVID19	Multi-country Europe, lead country: Denmark	Phase 2 study Double-blinded, randomised, placebo-controlled trial. N= 200 Hospitalised Severe Covid-19 patients randomised to rhACE2 or placebo	Primary Outcome Measures : Cause of death or invasive mechanical ventilation [ Time Frame: 28 days ] The primary endpoint is a composite endpoint of all cause-death or invasive mechanical ventilation up to 28 days or hospital discharge	Not yet recruiting; Estimated Primary Completion; September 2020	High
Recombinant Bacterial ACE2 receptors -like enzyme of B38-CAP (rbACE2)  Sponsor: Kafrelsheikh University	NCT04375046	Not stated	A phase 1, randomized, open label, controlled clinical study to evaluate the recombinant bacterial ACE2 receptors -like enzyme 2 (rbace2) compared to standard of care.  N = 24 adult patients with COVID-19	1.Time course of body temperature (fever) [ Time Frame: 14 days ]  2.Viral load over time [ Time Frame: 14 days ]	Not yet recruiting  Estimated Study Completion Date: October 2020	Medium
Recombinant Bacterial ACE2 Receptors-Like Enzyme of B38-CAP (rbACE2) and Isotretinoin  Sponsor: Kafrelsheikh University	NCT04382950	Egypt	Phase 1, open-label, controlled study on the use of Recombinant Bacterial ACE2 receptors -like enzyme of B38-CAP (rbACE2) plus Aerosolized 13 cis retinoic acid in Covid-19 infection  N = 24, with Covid-19 infection	Time course of body temperature (fever) [Time Frame: at 14 days]	Not yet recruiting  Estimated Primary Completion: July 2020	Low
ACE-2 Recombinant human angiotensin converting enzyme 2 Mechanism of action: Recombinant human angiotensin converting enzyme 2 (rhACE2) as a treatment for patients with COVID-19 to block viral entry and decrease viral replication	NCT04287686	China, Guangdong	Pilot study to decide whether to continue with phase 2B trial  N=24 patients with positive SARS-CoV-2 or homolog to covid19 randomised to rhACE2 or placebo	Body temperature and viral load	Not yet recruiting; Estimated study completion: April 2020 Update 06.05.2020: Withdrawn	Low

## Angiotensin 1-7

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Angiotensin 1-7	NCT04332666 ATCO Trial	Belgium	Randomized, controlled, investigator initiated, phase II/phase III, single blinded, interventional trial N=60 patients with COVID-19 at ICU department randomised to angiotensin (1-7) or placebo	Composite outcome of mortality and necessity of mechanical ventilation	Not yet recruiting Estimated Primary Completion; May 30, 2020	Medium

TXA127 (angiotensin-(1-7)) Sponsor: Columbia University	NCT04401423	Not stated	Phase 2 Double-blinded, placebo-control, randomized clinical trial.  This study is to determine if administration of angiotensin-(1-7) / TXA127 prevents acute kidney injury and deterioration into multi-organ failure in patients with moderate to severe COVID-19.  N=100 adults with moderate COVID-19 admitted to hospital through the ED requiring oxygen therapy to maintain SaO <sub>2</sub> >90%.  Participants will receive one 3-hour dosage (0.5 mg/kg), intravenously, for 7 days consecutively.	Incidence of acute kidney injury [ Time Frame: Day 1 to Day 7 ]. Defined as an increase of serum creatinine by more than 0.3 mg/dL or 50% above baseline (at enrollment).  Incidence of respiratory failure [ Time Frame: Day 1 to Day 7 ]. Requiring intubation and ventilatory support.	Not yet recruiting  Estimated Primary Completion Date: June 2021.	Medium
Angiotensin 1-7 Sponsor: Kanuni Sultan Suleyman Training and Research Hospital	NCT04375124	Turkey	Open label non-randomised trial. Parallel assignment. N=20 patients assigned to angiotensin peptide (1-7) derived plasma or standard treatment.	Mortality [ Time Frame: 4 months ]	Not yet recruiting; Estimated Primary Completion Date: August 31, 2020	Low

## Chloroquine or hydroxychloroquine

Antimalarial agent, heme polymerase inhibitor; Malaria prophylaxis and treatment

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Chloroquin and Hydroxychloroquin	Early news: <a href="https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments">https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments</a>  WHO Solidarity and Discovery  NCT04315948  Canada: NCT04330690 Norway: 2020-000982-18, NCT04321616	EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway, Italy N=3200  ROW: Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand	Adaptive, randomised open clinical trial to one of 4 treatments  (not Chloroquin in EU)	Subject clinical status (on a 7-point ordinal scale) on Day 15	Recruiting;  Estimated study completion: March 2023  Update May 2020 Stopped by WHO  Update June 4 2020, study resumed	High

	Spain: 2020-001366-11	More countries are expected to join				
Hydroxychloroquine Sponsor: Fundacio Lluita Contra la SIDA	NCT04304053	Barcelona, Spain	Phase 3, Open label cluster randomised trial N= 3040 participants Randomised to prophylaxis with Hydroxychloroquine or standard of care  Contacts will be offered a prophylactic regimen of chloroquine	Incidence of secondary cases among contacts of a case and contacts of contacts	Recruiting; Estimated primary completion: June 15, 2020	High
Hydroxychloroquine Sponsor: Washington University School of Medicine	NCT04333732  CROWN CORONATION	Several countries involved: United States, Australia, Ireland, Canada, South Africa, UK	A Phase 2, International Multi-site, Bayesian Adaptive, Randomised, Double-blinded, Placebo-controlled Trial Assessing the Effectiveness of Varied Doses of Oral Chloroquine in Preventing or Reducing the Severity of COVID-19 Disease in Healthcare Workers N=55000 randomised to Low-dose (300mg chloroquine base weekly); Medium-dose (300mg chloroquine base twice weekly); High-dose (150 mg chloroquine base daily); Placebo.	Symptomatic COVID-19 [ Time Frame: 3 months ]	Not yet recruiting; Estimated Primary Completion: February 2021	High
Hydroxychloroquine Sponsor: National Institute of Respiratory Diseases, Mexico	NCT04315896 Hydra trial	Mexico	Randomised double blinded placebo controlled trial N= 500 severe covid-19 patients randomised to hydroxychloroquine, or placebo	All-cause hospital mortality, time frame day 120	Not yet recruiting;  Estimated Primary Completion: October 31, 2020	High
Hydroxychloroquine Sponsor: National Institute of Respiratory Diseases, Mexico	NCT04318015 PHYDRA trial	Mexico	Prevention trial Randomised double blinded placebo controlled trial, stratified by risk. N= 400 Healthcare personnel exposed to patients with COVID-19 randomised to hydroxychloroquine, or placebo	Symptomatic COVID-19 infection rate	Not yet recruiting;  Estimated Primary Completion: December 31, 2020	High
Hydroxychloroquine Sponsor: Columbia University	NCT04318444	New York	Post Exposure Prophylaxis for Household Contacts of COVID-19 Patients: A NYC Community-Based Randomized Clinical Trial, double-blinded N=1600 household contacts	Number of participants with symptomatic, lab-confirmed COVID-19.	Not yet recruiting; Estimated Primary Completion: March 2021	High

Chloroquine, Sponsor: University of Oxford(Welcome Trust funded)	NCT04303507 (? and EudraCT number: 2020-001441-39?-pending)	Thailand, Laos, Vietnam, Italy, UK  Open for new sites in Asia, Europe and Africa	A Randomised 1:1, Placebo-controlled Prophylaxis Study (COPCOV) N=40,000 Hydroxychloroquine/Chloroquine vs placebo. Recruits healthcare workers in healthcare facilities delivering direct care to patients with either proven or suspected COVID-19, who can be followed reliably for up to 5 months. 40,000 participants will be recruited and the investigators predict an average of 400-800 participants per site in 50-100 sites.  Loading dose of 10 mg/kg, followed by 150 mg daily for 90 days	Number of symptomatic COVID-19 infections [ Time Frame: Approximately 100 days ]	Not yet recruiting; Estimated completion date: April 2021	High
Hydroxychloroquine  Sponsor: University of Minnesota	NCT04308668	Minneapolis, Minnesota, New York, New York, United States	Post-exposure Prophylaxis. A Pragmatic Randomized Clinical Trial Quadruple blinded. N=1500 exposed to a COVID19 case within 3 days as either a healthcare worker or household contact randomised to hydroxychloroquine or placebo	Incidence of COVID19 Disease [ Time Frame: 14 days ] Ordinal Scale of COVID19 Disease Severity [ Time Frame: 14 days ]	Recruiting.  Estimated Study Completion: May 2021	High
Hydroxychloroquine	EudraCT: 2020-001224-33	Germany	Randomised, double-blinded, placebo-controlled trial N=220 patients with COVID-19 randomised to Hydroxychloroquine or placebo	Viral clearance measured in throat swabs. Interim analysis: will be done when 40% of events have accrued. In case the interim analysis shows a HR > 1.93 (nominal p < 0.0018), efficacy is shown and the trial may be stopped.	Ongoing as of April 2020  Estimated duration: 1 year and 6 months	High
Hydroxychloroquine + Azithromycin	NCT04322396  2020-001198-55  ProBe-COVID-Trial	Denmark	A Randomized, Placebo-controlled Double-blinded Trial Evaluating Treatment With Azithromycin and Hydroxychloroquine to Patients With COVID-19 N= 226 patients with positive COVID-19 test/diagnosis during the hospitalization randomised to Azithromycin and Hydroxychloroquine or placebo	Number of days alive and discharged from hospital within 14 days	Recruiting; Estimated Primary Completion: October 31, 2020	High
Hydroxychloroquine	NCT04325893	France	a Prospective, Multicentre, Randomised, Double-blind Study N=1300 randomised to hydroxychloroquine or placebo	Death, regardless of cause, or the use of intubation and invasive ventilation in the 14 days following inclusion and the start of treatment	Estimated Primary Completion: September 2020	High
Hydroxychloroquine	NCT04328467	United States, Minnesota	Pre-exposure Prophylaxis for SARS-Coronavirus-2	COVID-19-free survival [ Time Frame: up to 12 weeks ]	Recruiting;	High

			N=3500 healthcare workers at high risk for COVID-19 exposure randomised to 3 arms: hydroxychloroquine 400 mg once weekly hydroxychloroquine 400 mg twice weekly or placebo		Estimated Primary Completion: August 2020	
Hydroxychloroquine and lopinavir/ritonavir	NCT04328285	France, d'Angers, Paris, Saint Etienne	A 2-step randomized double-blind placebo-controlled clinical trial. N=600 health care workers randomised to HCQ or placebo. Subsequently 600 health care workers will be randomised to Lopinavir and ritonavir or placebo	Occurrence of an symptomatic or asymptomatic SARS-CoV-2 infection among healthcare workers [ Time Frame: Up to 2.5 months ]	Recruiting; Estimated Primary Completion: November 30, 2020	High
Hydroxychloroquine	NCT04329923	United States, Pennsylvania	There are 3 cohorts. All participants in of each the cohorts are randomized to one of two arms. Cohorts 1 and 3 are double-blind placebo control cohorts. Cohort 2 is an open label randomized study. Cohort 1 (COVID-19 PCR+ patients quarantined at home): HCQ 400 mg x 2 vs placebo Cohort 2 (Hospitalized COVID-19 PCR+ patients): HCQ 600 mg x 2 vs HCQ 600 mg x 1 Cohort 3 (Health care workers at high risk of contracting COVID-19): HCQ 600 mg x 1 vs placebo	Cohort 1: Median release from quarantine time [ Time Frame: 14 days or less ] Cohort 2: Rate of hospital discharge [ Time Frame: 14 days ] Cohort 3: Rate of infection [ Time Frame: 2 months ]	Estimated Primary Completion: April 1, 2021	High
Hydroxychloroquine	NCT04329611	Canada, Alberta	A Randomized, Double-blind, Placebo-controlled Trial N=1660 subjects with COVID-19 (clinical status not stated) randomised to HCQ or placebo	Composite of hospitalization, invasive mechanical ventilation or death within 30 days	Recruiting; Estimated Primary Completion; August 31, 2020	High
Hydroxychloroquine	NCT04331834	Barcelona, Spain	Pre-Exposure Prophylaxis; Randomised, double-blinded controlled trial. N=440 High-Risk Healthcare Workers	Confirmed cases of a COVID-19	Recruiting; Estimated Primary Completion; October 3, 2020	High
Hydroxychloroquine Sponsor: Sanofi	NCT04333654	United States, Massachusetts, US	A Phase 1b, Randomized, Double-blinded, Placebo-controlled Study of Hydroxychloroquine in Outpatient Adults With COVID-19 N=210	Viral load assessed by PCR from a nasopharyngeal swab	Recruiting; Estimated Primary Completion; August, 2020	High

Hydroxychloroquine	NCT04332991 (ORCHID)	More than 40 locations in US	Multicenter, blinded, placebo-controlled, randomized clinical trial with COVID-19 N=510 randomised to hydroxychloroquine or placebo	COVID Ordinal Outcomes Scale (7 step) on Day 15 [ Time Frame: assessed on study day 15	Recruiting; Estimated Primary Completion: April 2021	High
Hydroxychloroquine	NCT04334148	Not stated yet	Double blind, placebo-controlled, randomized clinical trial. N=15000 Healthcare Workers randomised to Hydroxychloroquine or placebo	Number of participants testing positive for COVID-19 infection [ Time Frame: 30 days ]	Not yet recruiting; Estimated Primary Completion: July 2020	High
Hydroxychloroquine Sponsor: Medical University of Vienna	NCT04336748	Not stated yet	Randomized, Double-blind, Controlled Trial N=440 health care workers exposed to SARS-CoV-2 randomised to hydroxychloroquine or placebo	Symptomatic or asymptomatic SARS-CoV-2 infection confirmed by PCR [ Time Frame: 4 weeks ]	Not yet recruiting; Estimated Primary Completion: July 2020	High
Hydroxychloroquine Baricitinib Sarilumab Convalescent plasma	Eudract: 2020-001367-88  NCT04345289	Denmark	A double-blinded, randomized, multistage, 6-armed placebo-controlled trial in the framework of an adaptive trial platform. N=1500 Hydroxychloroquine Baricitinib Sarilumab	All-cause mortality or need of invasive mechanical ventilation up to 28 days.	Ongoing  Estimated Primary Completion: June 15, 2021	High
Hydroxychloroquine;  Sponsor: University Hospital Tuebingen	NCT04340544  COMIHY	Germany, Institute for Tropical Medicine	Double blinded, placebo-controlled trial. N=2700 patients with mild COVID-19 randomised to hydroxychloroquine or placebo	Difference in time to resolution of clinical signs and symptoms of mild COVID-19 [ Time Frame: 28±2 days ]	Not yet recruiting; Estimated Primary Completion: November 30, 2021	High
Hydroxychloroquine  Sponsor: Henry Ford Health System	NCT04341441	United States, Detroit, Michigan	Phase 3, randomized, double-blinded (triple-masked) trial, placebo-controlled  N=3000 health care workers and first responders randomized 1:1:1 to: Daily HCQ 200 mg po q following a loading dose of 400 mg day 1 Weekly HCQ 400 mg po q, or placebo	Purpose of the study is to determine whether oral HCQ therapy will prevent infection	Recruiting  Estimated primary completion: June 30 2020	High
Hydroxychloroquine  Sponsor: University Hospital Tuebingen	NCT04342221  (COV-HCQ)	Germany, Tübingen	Phase 3, randomized, quadruple-masking, placebo-controlled clinical trial  N=220, mild to moderate COVID-19 patients  Randomized 1:1 for	Effect of HCQ on in vivo viral clearance [Time Frame: 6 months]	Recruiting  Estimated primary Completion Date: March 2021	High

			800mg HCQ sulfate on day one and 600mg for 6 more days or Placebo			
Chloroquine Diphosphate  Sponsor: Fundação de Medicina Tropical Dr. Heitor Vieira Dourado	NCT04342650  CloroCOVID19II	Brazil	Phase 2, double-blinded, randomized, placebo-controlled clinical trial.  N=210 patients, age > 18, without a diagnosis of severe respiratory disease, who came to the study site with clinical and radiological suspicion of SARS-CoV2. Randomized 1:1 for 5-day chloroquine diphosphate tablets or placebo.	Proportion of patients with onset of severe acute respiratory syndrome (SARS) [ Time Frame: 7 days after randomization ] Evaluate if CQ diphosphate prevents the onset of SARS in patients on intervention group through standardized questionnaires.	Recruiting  Estimated Primary Completion Date: September 2020	High
Hydroxychloroquine sulfate  Sponsor: Barcelona Institute for Global Health (ISGlobal)	EudraCT: 2020-001587-29	Spain	Phase 4, randomized, double-blinded, placebo-controlled trial on the efficacy of Hydroxychloroquine sulfate in preventing SARS-CoV-2 infection and CoVid-19 disease severity during pregnancy.  N=714 pregnant women in two groups: a) Pregnant women with PCR-confirmed SARS-CoV-2 diagnosis, with mild or without symptoms/signs suggestive of the infection b) Pregnant women with a negative PCR SARS-CoV-2 who are contacts (at the household level) of a confirmed or clinically suspected case of the infection.	- The mean reduction in viral load at day 14 after recruitment among those women infected by SARS-CoV-2, in the ITT and ATP cohorts, adjusted by age, gravidity, region(municipality) and other variables associated with the prevalence and viral load of SARS-CoV-2 infection. - The comparison of the proportion of pregnant women who were close contacts of confirmed cases of SARS-CoV-2 infection, with a positive PCR for the infection at day 14, in the ITT and ATP cohorts, adjusted by adjusted by age, gravidity, region(municipality) and other variables associated with the prevalence of SARS-CoV-2 infection.	Ongoing  Trial registration: 2020-04-13  Estimate of duration: 1 year	High
Hydroxychloroquine  Sponsor: United States Department of Defense	NCT04343677	United States, Virginia	Phase 2, double blinded, randomized, placebo controlled clinical trial to evaluate the value of using Hydroxychloroquine or Chloroquine as pre-exposure prophylaxis or post-exposure prophylaxis regimen for COVID-19 patients and at risk personnel.  N = 1450 age > 18 critical personnel enrolled to the DiLorenzo Tricare Health Clinic or Pentagon Flight Medicine Clinic randomized to Daily dosing of hydroxychloroquine as PrEP or PEP, or placebo	Whether pre-exposure prophylaxis decreases the incidence of COVID-19 infections amongst personnel [Time Frame: 2 months]	Not yet recruiting.  Estimated Study Completion Date: June 2020	High

Hydroxychloroquine, Azithromycin  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04344379  2020-001273-73  PREP-COVID	France, multiple sites	Phase 3, randomized, double-blinded trial.  N=900 hospital workers with no signs of COVID-19 randomized 1:1:1 to hydroxychloroquine or azithromycin or placebo of hydroxychloroquine.	To assess the impact of hydroxychloroquine and azithromycin on the prevention of SARS-CoV-2 contamination in hospital workers exposed to 40 days of treatment. [ Time Frame: 3 months ]	Recruiting  Estimated Primary Completion Date: July 31, 2020	High
Hydroxychloroquine, azithromycin  Sponsor: University Hospital, Montpellier	NCT04345861  COVIDOC	France	Double-blinded randomized, placebo-controlled clinical trial to evaluate the efficacy and safety of hydroxychloroquine combined with azithromycin compared to hydroxychloroquine monotherapy in patients hospitalized with confirmed COVID-19 pneumonia.  N=150 randomized to Hydroxychloroquine + placebo or hydroxychloroquine + azithromycin	Time to clinical improvement of at least 1 level on the ordinal scale between Day 1 (day of the first administration of study drug) to Day 11 (day after last day of treatment). Evaluation of the clinical status of patient defined by the Ordinal Scale of 7 points (score range from 1 to 7 , with 7 being the worst score) [ Time Frame: up to Day 11 ]	Recruiting  Estimated Primary Completion Date: September 6, 2020	High
Hydroxychloroquine, Chloroquine  Sponsor: Government of Punjab, Specialized Healthcare and Medical Education Department	NCT04346667	Pakistan	Phase 4, double-blind, randomized trial to evaluate the use and dosage of hydroxychloroquine and chloroquine to convert RT-PCR positive COVID-19 patients to RT-PCR-negative as a means to reduce hospitalization rate.  N=400 randomized to Hydroxychloroquine Sulfate Regular dose + standard of care or Hydroxychloroquine Sulfate Loading Dose + standard of care or Chloroquine + standard of care or placebo + standard of care	RT-PCR negative status [ Time Frame: 6-7 days ]	Recruiting  Estimated Primary Completion Date: May 30, 2020	High
Hydroxychloroquine  Sponsor: Abderrahmane Mami Hospital	NCT04349228	Tunisia	Phase 3 randomized parallel interventional open-label blinded placebo controlled clinical trial to assess the Efficacy and Safety of Hydroxychloroquine (HCQ) Administered as a Prophylaxis for Health Professionals Exposed to COVID19.  N = 530 healthcare workers at ICU age > 18 exposed to COVID-19 infection to receive hydroxychloroquine (HCQ) (200	Symptomatic COVID(+) infection rate [Time Frame: 60 days]	Not yet recruiting  Estimated Primary Completion Date: July 15, 2020	High

			mg / day) for at least 2 months or until potential contamination, or placebo.			
Hydroxychloroquine (HCQ): malaria, amoebae, SLE, RA. Azithromycin (AZT): Macrolide antibiotic. Infection with AZT-sensitive bacteria	NCT04358081 Sponsor: Novartis	USA (FDA-approved)	Quadrablinded RCT with 3 treatment arms. 444 patients randomized 1:1:1 to Standard of care plus 1) placebo 2) oral HCQ monotherapy 3) oral HCQ + AZT	Percentage of [patients hospitalized with COVID19 pneumonia.] who achieve clinical response (i.e. to demonstrate in patients receiving standard of care that the percentage who achieve clinical response with hydroxychloroquine or hydroxychloroquine and azithromycin is superior to placebo at Day 15)	Recruiting from April 30, 2020 Estimated study completion: July 21, 2020	High
Chloroquine Hydroxychloroquine  Sponsor: Government of Punjab, Specialized Healthcare and Medical Education Department	NCT04351191  (PRECISE)	Pakistan	Prospective double blind randomized superiority clinical trial N=400 patients with non-life threatening symptomatic SARS-CoV-2 infection randomized to Hydroxychloroquine sulfate regular dose, hydroxychloroquine sulfate loading dose, chloroquine, or placebo	RT-PCR negative status [ Time Frame: 6th and 7th day ]	Recruiting; Estimated Primary Completion; May 30, 2020	High
Hydroxychloroquine  Sponsor: Cambridge University Hospitals NHS Foundation Trust	NCT04352933  EudraCT 2020-001331-26	UK	Phase 3, double-blind, randomized, placebo-controlled trial for Hydroxychloroquine as chemoprophylaxis for COVID-19 infectious disease.  N = 1000 health care workers with direct patient care randomized to either: (1) Hydroxychloroquine Daily (loading phase: 800mg for first 2 days; maintenance phase: 1 x 200mg tablet every day) + weekly placebo; (2) Hydroxychloroquine weekly (loading phase: 800mg for first 2 days; maintenance phase: 2 x 200mg tablets every 7th day/weekly) + daily placebo, or (3) placebo (daily and weekly).	Time to positive COVID-19 disease [Time Frame: Assessed up to 90 days]	Recruiting  Estimated primary completion date: October 31, 2020	High
Hydroxychloroquine  Sponsor: GeoSentinel Foundation	NCT04352946	United States, New York	Phase 3, double-blinded, randomized placebo-controlled trial to determine if pre-exposure prophylaxis (PrEP) with hydroxychloroquine (HCQ) for health	Cumulative Incidence of COVID-19 Infection [Time Frame: 90 days]	Not yet recruiting	High

			care workers in the hospital reduces symptomatic and asymptomatic COVID-19 disease during the pandemic.  N = 374 health care workers randomized to either 400 mg hydroxychloroquine (HCQ) taken orally once daily or placebo.		Estimated primary completion date: June 24, 2020	
Hydroxychloroquine  Sponsor: Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla (FISEVI)	2020-001440-26	Spain	Pilot, double-blind, placebo-controlled clinical trial to evaluate the efficacy and safety of pre-exposure use of hydroxychloroquine versus placebo in the prevention of SARS-CoV-2 (COVID-19) infection in healthcare personnel. N=184 health care workers randomized to hydroxychloroquine or placebo	Decrease of the incidence of coronavirus disease (COVID-19) in the healthcare personnel who attends SARS-CoV-2 infected patients from 9% in control group to 3% in experimental group (day 60)	Ongoing by 28.04.2020 Estimated study duration: 6 months	High
Hydroxychloroquine Sulfate and Folic Acid; Hydroxychloroquine Sulfate and Azithromycin  Sponsor: University of Washington	NCT04354428	United States, Washington (multiple sites)	Phase 2/3, randomized, multi-center, placebo-equivalent (ascorbic acid + folic acid)-controlled, double-blinded trial.  N=495 covid-19 patients with high risk of lower respiratory tract infection (LRTI) randomized 1:1:1 to Hydroxychloroquine (HCQ) + placebo (folic acid), HCQ + azithromycin, or placebo (ascorbic acid + folic acid)  N=135 covid-19 patients without risk factors for LRTI progression	1. Lower respiratory tract infection (LRTI) rates [ Time Frame: 28 days from enrolment ]  2. Incidence of hospitalization or mortality [ Time Frame: Day 28 after enrolment ]  3. Change in upper respiratory viral shedding [ Time Frame: Day 1 through Day 14 after enrolment ]	Recruiting  Estimated Primary Completion Date: July 2020	High
Hydroxychloroquine and Azithromycin  Sponsor: National Institute of Allergy and Infectious Diseases (NIAID)	NCT04358068	Not stated	A phase 2b, randomized, double-blind, placebo-controlled trial to evaluate the efficacy of Hydroxychloroquine and Azithromycin to prevent hospitalization or death in persons with COVID-19  N = 2000 symptomatic adult outpatients with COVID-19 randomized 1:1 to receive active/placebo study treatment	Proportion of participants who died from any cause or were hospitalized [ Time Frame: Measured during the 21-day period from and including the day of the first (confirmed) dose of study treatment ]	Not yet recruiting  Estimated Primary Completion Date: October 9 2020	High
Hydroxychloroquine and Azithromycin  Sponsor: Salomeh Keyhani MD	NCT04363203  (VA-REACH)	United States?	A phase 4, randomized, double-blinded, placebo-controlled study to determine the efficacy of hydroxychloroquine or azithromycin compared to placebo.  N = 600 patients with mild to moderate COVID-19 randomized to a 1:1:1	Days to resolution of cough, fever and shortness of breath [ Time Frame: 30-days ]	Not yet recruiting  Estimated primary Completion: March 2021	High

			treatment allocation (Hydroxychloroquine, Azithromycin or placebo)			
Hydroxychloroquine  Sponsor: Louisiana State University Health Sciences Center in New Orleans	NCT04363450  (HCQPreP)	United States, Louisiana	A phase 3, double-blind, randomized, placebo-controlled clinical trial to determine if primary prophylaxis with hydroxychloroquine in healthcare workers reduces symptomatic COVID-19 infection  N = 1700 healthcare workers randomized to a 1:1 allocation between intervention and placebo arms	Incidence of symptomatic COVID-19 infection in healthcare workers [ Time Frame: 12 weeks ]	Recruiting  Estimated primary Completion Date: July 6, 2020	High
Hydroxychloroquine  Sponsor: University of the Philippines	NCT04364815	Philippines?	A phase 3, randomized, double-blinded, placebo-controlled trial to compare the efficacy and safety of hydroxychloroquine plus standard preventive measures and standard preventive measures alone as post-exposure prophylaxis for healthcare workers  N = 960	Efficacy of HCQ Prophylaxis in Preventing COVID-19 infection [ Time Frame: 30 days ]	Not yet recruiting  Estimated Study Completion Date: May 2021	High
Hydroxychloroquine  Sponsor: Sanford Health	NCT04372017	Not stated?	A phase 3, double-blind, randomized, placebo-controlled study in two distinct cohorts to evaluate the efficacy and safety of hydroxychloroquine in the prevention of COVID-19 infection.  N = 1739 allocated to 4 arms. Arm 1: Experimental: Cohort A: Healthcare worker (hydroxychloroquine) Arm 2: Placebo Comparator: Cohort A: Healthcare worker (placebo) Arm 3: Experimental: Cohort B: High-Risk participant (hydroxychloroquine) Arm 4: Placebo Comparator: Cohort B: High-Risk participant (placebo)	1.Cohort A: Percentage of COVID-19 exposed healthcare workers treated with hydroxychloroquine with a positive COVID-19 test. 2.Cohort B: Percentage of COVID-19 exposed high-risk individuals treated with hydroxychloroquine with a positive COVID-19 test.	Not yet recruiting  Estimated Primary Completion Date: April 20, 2022	High
Hydroxychloroquine Chemoprophylaxis  Sponsor: Services Institute of Medical Sciences, Pakistan	NCT04370015	Pakistan	Double-blinded, placebo-controlled, randomized trial on the efficacy of HCQ in prophylaxis of Covid-19 infection if health care workers at risk of exposure	1. Prevention of SARS-CoV-2 as determined by negative RT-PCR at the end of 12 week study period  2. Safety as determined by presence or absence of any adverse event related with hydroxychloroquine treatment	Not yet recruiting  Estimated primary Completion, July 2020	High

			N = 274, age ≥ 18 ≤ 60, health care workers without Covid-19 randomized to oral HCQ or placebo for 11 weeks	[Time Frame: From date of randomization until the appearance of symptoms or study completion 12 weeks after treatment initiation]		
Hydroxychloroquine Sponsor: NYU Langone Health	NCT04369742	United States, New York Multicenter	Phase 2, double-blinded, placebo-controlled, randomized trial on HCQ in adults hospitalized with Covid-19  N = 626, age ≥ 18, hospitalized with Covid-19 randomized 1:1 to HCQ or placebo (calcium citrate)	1. Cumulative incidence of SAEs and grade 3 or 4 AEs through day 30 [Time Frame: 30 days]  2. Incidence of discontinuation of therapy [Time Frame: 30 days]  3. Severe disease progression [Time Frame: 14 days]	Recruiting  Estimated Primary Completion: June 2020	High
Hydroxychloroquine Sponsor: St. Joseph's Healthcare Hamilton	NCT04371523 (PROVIDE)	Canada, Ontario	A phase 3, randomized, double blind, parallel design, placebo controlled trial to prevent COVID-19 disease amongst healthcare workers.  N = 1000 healthcare workers	Positive for SARS-CoV-2 [ Time Frame: 8 weeks ]	Not yet recruiting  Estimated primary Completion Date: July 31, 2020	High
Hydroxychloroquine Sponsor: Megan Landes	NCT04374942 (HEROs)	Canada, Ontario	A phase 3, double-blind, randomized placebo controlled trial to evaluate if hydroxychloroquine taken once daily for three months as PrEP can prevent COVID-19 in health care workers in the emergency department.  N = 988 health care workers	Microbiologically confirmed COVID-19 (SARS-CoV-2 infection) [ Time Frame: Samples collected at day 0, 30, 60, 90 and 120 ]	Enrolling by invitation  Estimated Study Completion Date: January 30, 2022	High
Multiple products:  The seven arms of intervention include: hydroxicloroquine (HCQ), HCQ + tocilizumab, HCQ + sarilumab, HCQ + siltuximab, HCQ + canakinumab, HCQ + baricitinib, HCQ + methylprednisolone	EUDRACT N: 2020-001854-23  the AMMURAVID trial	Italy  Sponsor Società Italiana Malattie Infettive e Tropicali (SIMIT)	Cumulative adaptive, multiarm, multistage and multicentre randomized clinical trial with immunotherapy for Moderate COVID-19	The primary objective of this nationwide randomised trial is to assess whether immunosuppressive agents in addition to hydroxicloroquine can reduce the progression to very severe respiratory failure with PaO <sub>2</sub> /FiO <sub>2</sub> ratio < 200 mmHg (ARDS-range).	Clinical Trial Application approved by AIFA (Italy competent authority) 01.05.2020 Estimated primary completion 01.03.2023	High
Hydroxychloroquine Sponsor: Memorial Sloan Kettering Cancer Center	NCT04381988	United States, New York, New Jersey	Phase 2, randomized, double-blind, placebo-controlled clinical trial of hydroxychloroquine for prophylaxis against COVID-19 in patients receiving radiotherapy.	Cumulative incidence of SARS-CoV-2 infection [Time Frame: within 9 weeks from randomization]	Recruiting Estimated Primary Completion Date: May 2021	High

			N = 132 age > 18 to 400mg hydroxychloroquine daily with at least 10 radiation treatments prior to initiation of hydroxychloroquine.			
Hydroxychloroquine	NCT04385264	Switzerland	Phase 2/3, double-blinded, placebo-controlled, randomized trial on the efficacy of early HCQ in outpatients to reduce secondary hospitalisation and household transmission of COVID-19  N = 800, Covid-19 infected, well enough to self-isolate in Switzerland	Proportion of poor outcomes (in index cases) [Time Frame: During the period that the subject is considered as COVID-19-positive: Average of 11 days]  Proportion of secondary hospitalisations (and their length), ICU admissions (and their length) and deaths.	Not yet recruiting  Estimated Primary Completion: August 2020	High
Hydroxychloroquine	NCT04397328	Not stated	Phase 3, randomized, double-blinded study to assess the safety and efficacy of post-exposure prophylaxis with hydroxychloroquine for the prevention of Coronavirus Infectious Disease-19 (COVID-19) in high-risk older individuals in long-term and specialized care.  N=336 randomized 1:1 to hydroxychloroquine or placebo.	Incidence of symptomatic fever >37.8, dry cough, or shortness of breath (resident/patient report or nurse observation) respiratory infection with confirmed PCR+ result for SARS-CoV-2. [ Time Frame: baseline through day 90 ]	Not yet recruiting  Estimated Primary Completion Date: April 30, 2021	High
Hydroxychloroquine	NCT04400019  PREVICHARM Study  2020-002287-31	Spain	Phase 2/3, cluster randomized, placebo-controlled, stepped-wedge study to test the effectiveness of hydroxychloroquine as a preventive drug for SARS-CoV-2 infection  N=1930 (1050 institutionalized people in nursing homes who do not have the infection present at the time of entering into the study and 880 healthcare professionals who provide direct care to institutionalized older people in nursing homes with confirmed cases of COVID19 during the past two weeks)  The stepped-wedge design involves the collection of observations during a baseline period in which no clusters are exposed to the intervention though they will be receiving placebo. Following this, at regular intervals, a group of clusters will be randomized to	1. Number of secondary cases of SARS-CoV2 infection among residents at 6, 14 and 28 days. [ Time Frame: This outcome will be evaluated at 6, 14 and 28 days from the administration of chemoprophylaxis with hydroxychloroquine ]  4.SARS-CoV-2 infection in nursing home staff who provide direct care at 6, 14 and 28 days [ Time Frame: This outcome will be evaluated at 6, 14 and 28 days from the administration of chemoprophylaxis with hydroxychloroquine ]	Not yet recruiting  Estimated Primary Completion Date: December 15, 2020	High

			receive the intervention, being all participants measured regularly. This process continues until all the clusters have received the intervention.			
Hydroxychloroquine + azithromycin  Sponsor: University College Dublin	2020-001265-36	Ireland	a multi-centre, prospective, randomised, open label, 3 arm (ratio 1:1:1) trial with parallel group design.  N=351 Patients with confirmed diagnosis of COVID-19 (PCR positive) who are non-critical but show evidence of progressive clinical decline will be randomised to standard of care + HCQ, Standard of care+ HCQ + azithromycin, or standard of care.	a composite endpoint for time to progression to intubation, non-invasive ventilation, use of immunomodulatory therapy for COVID-19 infection or death.	Ongoing;  Estimated primary completion: May 2022	Medium
Hydroxychloroquine, vitamin D and Zinc	2020-001363-85	Denmark	A randomised, open label, controlled trial. N=206 Danish nursing home residents, healthy volunteers randomised to hydroxychloroquine, vitamin D, and zinc supplement or no prophylactic treatment	SARS-CoV-2 positive rtPCR from nasopharyngeal samples during 2 months prophylactic treatment with hydroxychloroquine, vitamin D, and zinc supplement or no prophylactic treatment	Start date 23.04.2020. Duration of the trial: 4 months	Medium
Hydroxychloroquine	Eudract: 2020-001257-51	Denmark	A multicenter parallel-group open randomized clinical trial  N=568 dialysis-treated patients with end-stage renal disease randomised to hydroxychloroquine or no treatment	Hospitalization due to SAR-COV-2	Ongoing	Medium
Hydroxychloroquine, Azithromycine  Sponsor: Institut de Cancerologie Strasbourg Europe	NCT04392128  2020-002002-45	France	Phase 2, multicentric, placebo-controlled double-blind, randomized study to evaluate the efficacy of the combination of hydroxychloroquine and azithromycine on the viral load drop at day 5 among patients with COVID-19 and hematological malignancies.  N=114 adult subjects with PCR-confirmed COVID-19 disease by a nasopharyngeal swab, non severe, and hematologic malignancy randomized 1:1 to Hydroxychloroquine + Azithromycine or placebo.	Evaluation of the efficacy of hydroxychloroquine and azithromycine on the viral load drop at day 5. [ Time Frame: 5 days of treatment ]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2020	Medium

Hydroxychloroquine and Favipiravir  Sponsor: Ministry of Health, Turkey	NCT04411433	Turkey	Phase 3, open-label, multicenter, parallel-group, randomized study to evaluate the efficacy and safety of Hydroxychloroquine and Favipiravir in the treatment of mild to moderate COVID-19.  N=1000 randomized in 2:1:2:2:2:1 ratio and divided into six groups:  1. Favipiravir (3200 mg + 1200 mg) 2. Favipiravir (3600 mg + 1600 mg) 3. Favipiravir combined with Hydroxychloroquine 4. Favipiravir combined with Azithromycin 5. Hydroxychloroquine 6. Hydroxychloroquine combined with Azithromycin	1. Time to recovery (discharge) [ Time Frame: 14 days ]  2. Decrease in viral load [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: July 30, 2020	Medium
Hydroxychloroquine, Azithromycin, Lopinavir/ritonavir  Sponsor: Basque Health Service	2020-001605-23  HUA-COVID-19	Spain	Phase IV, randomized, open-label study to evaluate the effectiveness of the combined treatment with hydroxychloroquine and azithromycin vs lopinavir/ritonavir + hydroxychloroquine in hospitalized patients with confirmed COVID-19 infection.  N=108 adult patients with RT-PCR confirmed COVID-19 and pneumonia randomized to hydroxychloroquine + azithromycin or lopinavir/ritonavir + hydroxychloroquine.	Respiratory severity scale Brescia-COVID. During hospital admission.	Ongoing  Estimated primary completion date: 2020-12-31	Medium
Hydroxychloroquine + Azithromycin  Sponsor: Centre Hôpital Universitaire Farhat Hached	NCT04405921	Not stated	Phase 3 Randomized, Open-label, Controlled Clinical Trial.  N=200 adults with confirmed COVID-19 randomized to Hydroxychloroquine associated to azithromycin or Hydroxychloroquine with placebo.	Clinical recovery at day-14, from the start of treatment. [ Time Frame: 14 days ]  Clinical recovery is defined as a complete resolution clinical signs appeared during the medical history and related to COVID-19.	Not yet recruiting  Estimated Primary Completion Date: December 2020	Medium
Hydroxychloroquine  Sponsor:	2020-001704-42  SANSinCOVID	Spain	Phase 4, randomized, placebo-controlled, double-blinded trial to assess the safety and efficacy of hydroxychloroquine chemoprophylaxis	- Number of healthcare professionals with symptomatic or asymptomatic SARS-CoV2 infection. - Severity of the infection.	Ongoing  Estimated Primary Completion Date:	Medium

IDIVAL Instituto de Investigación Sanitaria Valdecilla			in SARS CoV2 infection in hospital healthcare personnel.  N=450 healthcare personnel with high risk exposure randomized to hydroxychloroquine or placebo.	[Time frame: 2 months]	2020-11-21	
Hydroxychloroquine  Sponsor: King Abdullah International Medical Research Center	NCT04392973  FACCT	Saudi Arabia	Randomized, open-label, parallel groups multi-centered trial to evaluate the efficacy of the combination of Favipiravir and Hydroxychloroquine as potential therapy for moderate and severe cases with COVID-19  N=520 adult subjects with PCR confirmed SARS-coV-2 viral infection, moderate or severe COVID-19 randomized to Favipiravir + Hydroxychloroquine or standard care.	Clinical Improvement [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: November 2021	Medium
Hydroxychloroquine, Ivermectin  Sponsor: Centenario Hospital Miguel Hidalgo	NCT04391127	Mexico	Phase 3, randomized, double-blinded trial to evaluate the efficacy and safety of Hydroxychloroquine and Ivermectin in hospitalized no critical patients secondary to COVID-19 infection.  N=200 hospitalized subjects, RT-qPCR SARS-CoV-2 positivity or chest computed Tomography with suspected COVID-19 pneumonia.  Hospitalized patients with COVID-19 QTc < 500 msec: randomized to Hydroxychloroquine or Ivermectin or placebo.  Hospitalized patients with COVID-19 infection with QTc >500ms: randomized to Ivermectin or placebo.	1. Mean days of hospital stay [ Time Frame: Three months ]  2. Rate of Respiratory deterioration, requirement of invasive mechanical ventilation or dead [ Time Frame: Three months ]  3. Mean of oxygenation index delta [ Time Frame: Three months ]	Recruiting  Estimated Primary Completion Date: August 30, 2020	Medium
Hydroxychloroquine + Azithromycin  Sponsor: Institut Pasteur de Dakar	NCT04390594	Senegal	A phase 3, open label, randomised clinical trial of efficacy and safety of treatment regimens (hydroxychloroquine on one hand, and the combination of hydroxychloroquine and azithromycin on the other hand.  N = 258 adult COVID-19 patients	SARS-CoV-2 viral load level [ Time Frame: Day 7 ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2020	Medium

Hydroxychloroquine  Sponsor: NAVARRABIOMED - FUNDACIÓN MIGUEL SERVET	2020-001697-30  COVIDNA	Spain	Phase 3, randomized, controlled, open-label trial to assess the efficacy and safety of hydroxychloroquine base as prophylaxis in health professionals subjected to repeated exposures to the COVID-19 virus.  N=200 healthy sanitary with high exposure to COVID-19 randomized to hydroxychloroquine or no treatment.	- Appearance of Ig M in rapid test YES / NO - Appearance of Ig G in rapid test YES / NO - Appearance of symptoms compatible with COVID-19 - Positive PCR with compatible symptoms carried out in occupational risks (YES / NO) [Time frame: 6 weeks]	Ongoing  Estimated primary completion date: 2020-08-07	Medium
Hydroxychloroquine  Sponsor: Cambridge University Hospitals NHS Foundation Trust	NCT04389359	United Kingdom	Phase 2/3, open-label, controlled, randomized trial on the use of HCQ as prophylaxis for Covid-19 in vulnerable patient groups  N= 1500, in the high risk population group with no previous confirmed Covid-19 diagnosis	Time to confirmed diagnosis of COVID-19 [Time Frame: To study completion, average 6 months]	Not yet recruiting  Estimated Primary Completion: August 2021	Medium
Hydroxychloroquine  Sponsor: Kootenai Health	NCT04382625	United States, Idaho	A phase 4, randomized open-label trial of hydroxychloroquine + usual care compared to usual care.  N = 120 hospitalized adults with confirmed SARS-CoV-2 infection and acute hypoxia	1.Change from Baseline Oxygenation on Day 1 to Day 5 [ Time Frame: Day 1 of treatment to day 5 of treatment ] paO2 2.Change from Baseline Oxygenation at Day 5 [ Time Frame: Day 1 of treatment to day 5 of treatment ] FIO2	Not yet recruiting  Estimated Primary Completion Date: January 1, 2022	Medium
Hydroxychloroquine, Cyclosporine  Sponsor: Tatiana Cobo Ibáñez, Gemma María Mora Ortega and Gonzalo Serralta San Martín	2020-002123-11  HUIS-04-2020	Spain	Phase 4, randomized, controlled, open-label trial to evaluate the efficacy of cyclosporine and hydroxychloroquine (treatment group) versus hydroxychloroquine (control group) in patients with acute COVID-19 pneumonia.  N=280 randomized to cyclosporine + hydroxychloroquine or hydroxychloroquine alone.	Rate of patients achieving complete response 3 months after being diagnosed of COVID-19 pneumonia [Time frame: 3 months]	Ongoing  Estimated primary completion: 2021-05-08	Medium
Hydroxychloroquine + Zinc  Sponsor: Military Hospital of Tunis	NCT04377646	Tunesia (multicenter)	Phase 3, randomized, controlled, double-blinded clinical trial aiming to assess the efficacy of hydroxychloroquine associated to Zinc compared to hydroxychloroquine in the prevention of COVID-19 infection.  N=660 healthy military healthcare workers randomized to	Frequency of confirmed SARS CoV2 infection [ Time Frame: At 2 months of follow-up ]	Not yet recruiting  Estimated Primary Completion Date: May 24, 2020	Medium

			Hydroxychloroquine + Zinc or Hydroxychloroquine or placebo.			
Hydroxychloroquine Sponsor: Memorial Sloan Kettering Cancer Center	NCT04379492	United States, New York	A phase 2, randomized double-blind, placebo-controlled study of hydroxychloroquine compared to placebo as treatment for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.  N = 120	1.Clinical improvement on the Ordinal Scale for Clinical Improvement (OSCI) [ Time Frame: 14 days ] 2.Number of participants requiring mechanical ventilation for respiratory failure [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: May 2021	Medium
Hydroxychloroquine, Azithromycin, Ivermectin, Camostat Mesilate Sponsor: Susanne Arnold	NCT04374019	United States, Kentucky	Phase 2, Open-label, randomized trial of Novel Agents for Treatment of High-risk COVID-19 Positive Patients  N = 240, with confirmed Covid-19 or high probability of Covid-19 randomized to 4 arms: Arm A: HCQ Arm B: HCQ + Azithromycin Arm C: HCQ + Ivermectin Arm D: Camostat Mesilate	Clinical Deterioration [Time Frame: 14 days]	Recruiting  Estimated Study Completion: May 2021	Medium
Hydroxychloroquine sulfate and Azithromycin Sponsor: Rutgers, The State University of New Jersey	NCT04374552	United States, New Jersey	A phase 2, randomized, double-blinded, placebo-controlled study comparing azithromycin and hydroxychloroquine vs placebo.  N = 140 asymptomatic volunteers with COVID-19	The primary outcome is the rate of decline in viral load over the 10 days after randomization [ Time Frame: 10 days ]	Not yet recruiting  Estimated Study Completion Date: April 2021	Medium
Hydroxychloroquine, Diltiazem-Niclosamide Sponsor: University Hospital, Lille	NCT04372082  2020-002188-72  HYdILIC	France	Phase 3, multicenter, randomized, open-labeled controlled trial.  N=480 adult with positive test of covid-19, asymptomatic or with symptoms lasting less than 8 days, and associated comorbidities without any severity criteria of the disease at inclusion. Randomized to hydroxychloroquine + standard of care or Diltiazem-Niclosamide + standard of care or standard of care only.	1. death [ Time Frame: At day 14 ]  2. clinical worsening (composite criteria) [ Time Frame: At day 14 ]  3. Assisted-ventilation and/or hospitalization (composite criteria) [ Time Frame: At day 14 ]	Not yet recruiting  Estimated Study Completion Date: May 2023	Medium
Hydroxychloroquine, Telmisartan and Azithromycin Sponsor:	NCT04359953	France	Phase 3, open-label, randomized trial to evaluate the efficacy of Hydroxychloroquine, Telmisartan and Azithromycin on the survival of	Two-weeks survival rate [ Time Frame: Day 14 ]	Not yet recruiting  Estimated Primary Completion Date: June 1, 2021	Medium

University Hospital, Strasbourg, France			hospitalized elderly patients with COVID-19.  N=1600 randomized to Hydroxychloroquine or Azithromycin or Telmisartan or usual care.			
Hydroxychloroquine and Azithromycin  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04371406	France?	A phase 3, randomized, controlled, open-label trial to assess the efficacy of Hydroxychloroquine combined with azithromycin in COVID-19 patients in primary care, in add-on to standard of care (Azinc)  N = 2770	1.Rate of patients with occurrence of an unfavorable outcome between randomization and day 14 2.Primary outcome of ancillary virological study : evolution of viral load between day 0 and day 14	Not yet recruiting  Estimated primary Completion Date: August 2, 2020	Medium
Hydroxychloroquine + zinc combined with either azithromycin or doxycycline  Sponsor: St. Francis Hospital, New York	NCT04370782	United States, New York	A phase 4 randomized, open-label trial to assess the safety and efficacy of hydroxychloroquine, and zinc in combination with either azithromycin or doxycycline  N = 750 high risk COVID-19 positive outpatients	1.Time to Resolution of Symptoms relative to baseline (day 1 of trial) 2.Time to Resolution of Symptoms relative to baseline (day 1 of trial) 3.Time to Resolution of Symptoms relative to baseline (day 1 of trial) 4.Number of participants hospitalized and/or requiring repeat ER visits 5.ICU Length of Stay 6.Ventilator	Not yet recruiting  Estimated Primary Completion Date: August 31, 2020	Medium
Hydroxychloroquine sulfate  Sponsor: Shanghai Public Health Clinical Center	ChiCTR2000032487	China, Hubei	Phase 4, stratified block randomization.  Blinding not stated.  N=2000 healthy COVID-19 negative subjects randomized to hydroxychloroquine sulfate or placebo.	Detection of nucleic acid and antibody of new coronavirus	Not yet recruiting  From 2020-03-01 to 2020-09-30	Medium
Hydroxychloroquine (HCQ), Famotidine  Sponsor: Northwell Health	NCT04370262	United States, New York (multiple sites)	Phase 3, Randomized, Double-Blind, Multi-Arm Historical Control comparative trial of the safety and efficacy of Hydroxychloroquine and the combination of HCQ and Famotidine for the treatment of COVID-19.  N=1170 randomized to HCQ/Famotidine or HCQ/Placebo or control group (historical control, hospitalized patients who were not treated with hydroxychloroquine or famotidine during the early stages of the pandemic because	Mortality [ Time Frame: 30 days post hospitalization ]	Recruiting  Estimated primary Completion Date: Sept 7, 2020	Medium

			hydroxychloroquine was not a part of the standard of care).			
Azithromycin, Hydroxychloroquine and Lopinavir  Sponsor: Groupe Hospitalier Paris Saint Joseph	NCT04365582	France	A phase 3, open label randomized clinical trial comparing 4 arms of treatment: Standards of Care (SoC) alone versus SoC + Azithromycine versus SoC + Hydroxychloroquine vs Soc + Lopinavir/Ritonavir  N = 640 patients more than 50 years of age with comorbidity or patients more than 70 years of age.	Hospital admission [ Time Frame: Day 20 ]	Not yet recruiting  Estimated primary Completion Date: July 28, 2020	Medium
Hydroxychloroquine Sulfate and Lopinavir/ritonavir  Sponsor: Calmy Alexandra	NCT04364022  (COPEP)	Switzerland	A phase 3, open-label, randomized clinical trial to evaluate the efficacy of a single-dose of HCQ treatment and of a 5-day course of LPV/r treatment in preventing COVID-19 in asymptomatic individuals exposed to a SARS-CoV-2 documented index patient, compared to surveillance alone.  N = 420	21-day incidence of COVID-19 in individuals exposed to SARS-CoV- 2 who are asymptomatic at baseline (intent-to-treat (ITT) analysis). [ Time Frame: 21-day ]	Recruiting  Estimated Study Completion Date: October 2020	Medium
Chloroquine Sulfate, Hydroxychloroquine  Sponsor: UMC Utrecht	NCT04362332	Netherlands	Phase 4, cluster randomized, open-label trial.  N=950 hospitalized patients ≥18 with moderate to severe COVID-19 cluster randomized to chloroquine+standard-supportive-care or hydroxychloroquine+standard-supportive-care or standard-supportive-care only.	Composite endpoint with disease progression defined as a NEWS2score ≥ 7 within 14 days or resulting in admission to Intensive/Medium Care unit or resulting in death within 14 days. [ Time Frame: 14 days ]	Recruiting	Medium
Hydroxychloroquine, Azythromycin  Sponsor: Apsen Farmaceutica S.A.	NCT04361461	Brazil	Phase 3, randomized, open-label trial to evaluate the safety and efficacy of the hydroxychloroquine in patients with symptomatic SARS-Cov2.  N=500 hospitalized covid-19 patients > 18 years randomized to Hydroxychloroquine or Hydroxychloroquine + azithromycin.	Individual response rate [ Time Frame: 14 days after randomization ]	Not yet recruiting  Estimated Primary Completion Date: November 4, 2020	Medium
Chloroquine or hydroxychloroquine  Sponsor: University of Cape Town	NCT04360759	South Africa	Phase 3, open-label, multi-centre randomised controlled trial of Chloroquine/Hydroxychloroquine versus standard of care.	Event-free survival at 28 days post-randomization between experimental group and standard of care group [ Time Frame: Day 28 ]	Not yet recruiting  Estimated Study Completion Date: July 31, 2021	Medium

			N = 560 HIV-positive outpatients with mild Covid-19 in			
Hydroxychloroquine  Sponsor: Sir Mortimer B. Davis - Jewish General Hospital	NCT04354441  HyPreC	Canada??	Phase 2, randomized, placebo-controlled, double blinded trial to evaluate the effect of outpatient Hydroxychloroquine on reducing hospital admissions in pregnant women with SARS-CoV-2 infection.  N=600 canadian pregnant women, tested positive for COVID-19 within last 7 days. Randomized 1:1 to hydroxychloroquine (10-day course of hydroxychloroquine 200 mg tablet twice a day) or placebo.	COVID-19-related hospital admissions [ Time Frame: Hospital Admission at any point from study enrollment to delivery ]	Not yet recruiting  Estimated Primary Completion Date: November 2020	Medium.
Hydroxychloroquine, Azithromycin  Sponsor: Shahid Beheshti University of Medical Sciences, Tehran	NCT04359316	Iran	Phase 4, randomized, double-blind, placebo-controlled, clinical trial to evaluate the efficacy and safety of azithromycin compared to the base therapeutic regimen of Hydroxychloroquine in moderate to severe COVID-19.  N=40 randomized to Hydroxychloroquine+ Azithromycin or Hydroxychloroquine.	Time to clinical improvement [ Time Frame: From date of randomization until 14 days later. ]	Not yet recruiting  Estimated Primary Completion Date: May 3, 2020	Medium
Hydroxychloroquine, Azithromycin, Camostat Mesylate  Sponsor: Sheba Medical Center	NCT04355052	Israel	Phase 3, open-label, randomized trial.  N=250 hospitalized patients suffering from a mild or moderate SARS-CoV-2 virus randomized to Hydroxychloroquine+Azithromycin or Hydroxychloroquine+Camostat mesylate or nothing (control)	1. clinical state as reflected by NEWS scoring [ Time Frame: 7 days ]  2. positive PCR [ Time Frame: 7 days ]	Recruiting  Estimated Primary Completion Date: October 11, 2020	Medium
Hydroxychloroquine  Sponsor: Shaheed Zulfiqar Ali Bhutto Medical University	NCT04359537  (CHEER)	Not stated	Phase 2, randomized, blinded, clinical trial to compare the efficacy of various doses of Hydroxychloroquine in pre-exposure prophylaxis for COVID 19 in healthcare personnel  N = 200 healthcare workers at high risk for COVID19 exposure. Arm 1: Hydroxychloroquine 400 mg twice a day 1	COVID-19-free survival in experimental arms compared to placebo [ Time Frame: 12 weeks ]	Not yet recruiting  Estimated primary Completion Date: August 25, 2020	Medium

			Arm 2:Hydroxychloroquine 400 mg on day 1 Arm 3:Hydroxychloroquine 200 mg on day 1 Control Group :Placebo			
Hydroxychloroquine (HCQ) and Azithromycin (AZ)  Sponsor: Iyad Sultan, King Hussein Cancer Center	NCT04354597  MOPHYDA	Jordan	A multicenter, randomized, open-label, pilot study on using HCQ and AZ prophylaxis for healthcare workers with a potential risk of exposure to COVID-19 patients.  N=200 healthcare workers dealing with COVID-19 patients randomized to HCQ & AZ or no treatment.	Effect of HCQ and AZ in preventing infection with COVID-19 among healthcare workers working with COVID-19 patients [ Time Frame: 4 months ]	Not yet recruiting  Estimated Primary Completion Date: August 15, 2020	Medium
Hydroxychloroquine  Sponsor: UnitedHealth Group	NCT04353037	United States, New York	Phase 2, randomized, open-label, multi-arm blinded trial of Hydroxychloroquine in the Prevention and Treatment of COVID-19  N = 850 A) patients age 50-75 with symptoms of COVID-19 to hydroxychloroquine 400 mg bid (two 200 mg tablets taken twice a day; totaling 800 mg per day) for two weeks or placebo.  B) Asymptomatic health care workers to Hydroxychloroquine 600 mg once a day (three 200 mg tablets taken once a day) for up to 2 months or Placebo 3 pills once a day for up to 2 months.	Patients: Rate of hospitalization at 21 days Health care workers: Rate of COVID-19 infection (confirmed by accepted testing methods) at 2 months	Recruiting  Estimated Study Completion Date: June 15, 2021	Medium
Hydroxychloroquine sulfate  Sponsor: Shanghai Public Health Clinical Center	ChiCTR2000031174	China, Shanghai	A randomized, double-blind, controlled study to evaluate the effectiveness and safety of hydroxychloroquine sulfate.  N = 1000. 2 groups: 1 group was the control group receiving placebo, 1 group was the experimental group	COVID-19 Nucleic acid	Not yet recruiting  From 2020-03-23 To 2020-09-30	Medium
Hydroxychloroquine, Imatinib, Favipiravir, Telmisartan  Sponsor: University Hospital, Bordeaux	NCT04356495  (COVERAGE)	France	A phase 3, randomized controlled, open-label, multi-arm multi-stage (MAMS) trial to estimate the efficacy and tolerance of several experimental treatments.	Proportion of participants with an occurrence of hospitalization [ Time Frame: From inclusion (day0) to day 14 ]  Death [ Time Frame: From inclusion (day0) to day 14 ]	Not yet recruiting  Estimated primary Completion Date: July 31, 2020	Medium

			<p>N = 1057 patients aged 65 years or above with Symptomatic SARS-CoV-2 Infection .</p> <p>Participants will be randomly allocated 1:1 to the following strategies:</p> <ul style="list-style-type: none"> <li>•Arm 1: control arm</li> <li>•Arms 2 to X (where X is the number of arms): Experimental treatment</li> </ul> <p>At the time of trial initiation: People in the control arm will receive a complex of vitamins; people in the experimental arms will receive hydroxychloroquine, or favipiravir, or imatinib, or telmisartan.</p>			
<p>Chloroquine/ Hydroxychloroquine, Lopinavir/Ritonavir, Rivaroxaban, Thromboprophylaxis, Candesartan, Clazakizumab</p> <p>Sponsor: Medical University of Vienna</p>	<p>NCT04351724  ACOVACT</p>	<p>Austria (multiple sites)</p>	<p>A randomized, controlled, open-label trial on the efficacy and safety of experimental therapeutics for patients with COVID-19.</p> <p>N=500 randomized to receive hydroxychloroquine or lopinavir/ritonavir or standard of care. Moreover, these patients are eligible for substudy A (randomized to rivaroxaban 5mg 1-0-1 vs. standard of care), substudy B (renin-angiotensin (RAS) blockade vs. no RAS blockade for patients with blood pressure &gt;120/80mmHg), and substudy C (clazakizumab vs. standard of care, for patients with respiratory deterioration and high inflammatory biomarkers).</p>	<p>Sustained improvement (&gt;48h) of one point on the WHO Scale [ Time Frame: Inclusion to day 29, daily evaluation ]</p>	<p>Recruiting</p> <p>Estimated Primary Completion Date: December 1, 2020</p>	<p>Medium</p>
<p>Chloroquine phosphate</p> <p>Sponsor: Beijing you'an Hospital, Capital Medical University</p>	<p>ChiCTR2000031204</p>	<p>China, Beijing (multicenter)</p>	<p>Phase 2, single-blind, randomized controlled clinical trial to evaluate the efficacy and safety of chloroquine phosphate against pneumonia caused by novel coronavirus.</p> <p>N=300 randomized 1:1 to oral chloroquine phosphate tablets or placebo.</p>	<p>Clearance time of virus RNA</p>	<p>Recruiting</p> <p>From 2020-01-30 To 2020-04-30</p>	<p>Medium</p>
<p>Chloroquine</p> <p>Sponsor: Columbia University</p>	<p>NCT04349371</p>	<p>United States, New York</p>	<p>Phase 2 randomized placebo controlled clinical trial to determine the clinical efficacy of Chloroquine (CQ) in health care workers with moderate to high risk</p>	<p>1.Number of symptomatic illness in at risk healthcare workers [Time Frame: Up to 3 months]</p>	<p>Recruiting</p>	<p>Medium</p>

			<p>of exposure to COVID-19 in preventing symptomatic COVID-19 infections.</p> <p>N = 350 healthcare workers at New York Presbyterian Hospital with possible exposure for COVID-19 infection at least 2 days a week &gt;= 8 hours a day to receive chloroquine supply of 36 - 250 mg tabs or placebo that will last 3 months (enough for taking two tabs of 250mg for every day for one week and then two tabs of 250mg for 1 day a week thereafter for study duration of 3 months).</p>	<p>2.Number of healthcare workers with symptomatic COVID infections [Time Frame: Up to 3 months]</p> <p>3.Number of severe illness in at risk healthcare workers [Time Frame: Up to 3 months ]</p>	<p>Estimated Study Completion Date: April 2021</p>	
<p>Hydroxychloroquine</p> <p>Sponsor: University Hospital Tuebingen</p>	<p>NCT04351516</p> <p>(COVID65plus)</p>	<p>Germany</p>	<p>A phase 2/3 randomized, blinded, placebo-trial of Hydroxychloroquine versus placebo</p> <p>N = 350 elderly COVID19 patients (equal or older than 65 years)</p>	<p>Rate of hospitalization or death at day 7 after study inclusion [ Time Frame: 7 days ]</p>	<p>Recruiting</p> <p>Estimated Study Completion Date: May 1, 2021</p>	<p>Medium</p>
<p>Hydroxychloroquine, azithromycin</p> <p>Sponsor: University Hospital, Strasbourg, France</p>	<p>NCT04347512</p>	<p>France</p>	<p>Phase 3, randomized, open-label study to evaluate the clinical impact of adding Azithromycin to Hydroxychloroquine in the treatment of Sars-CoV-2 pneumonia.</p> <p>N=405 randomized to Hydroxychloroquine+ Azithromycin or Hydroxychloroquine or nothing (control group).</p>	<p>Rate of patients reaching a significant hypoxemia, in each arms. [ Time Frame: From day 0 to day 7 ]</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: August 1, 2021</p>	<p>Medium</p>
<p>Hydroxychloroquine, Azithromycin</p> <p>Sponsor: LCMC Health</p>	<p>NCT04344444</p>	<p>United States, Louisiana</p>	<p>Phase 3, randomized, open-label trial.</p> <p>N=600 COVID-19 infected patients with early moderate and severe disease admitted to the hospital.</p> <p>Randomized to supportive care, OR hydroxychloroquine alone, OR hydroxychloroquine and azithromycin.</p>	<p>Most severe outcome [ Time Frame: 5 days ]</p> <p>Ordinal outcome of most severe a patient experienced after inpatient admission</p>	<p>Recruiting</p> <p>Estimated Primary Completion Date: April 10, 2021</p>	<p>Medium</p>
<p>Hydroxychloroquine</p> <p>Sponsor: University of Utah</p>	<p>NCT04342169</p>	<p>United States, Utah</p>	<p>Phase 2, prospective, placebo-controlled, parallel group, randomized trial</p> <p>N = 400 patients age ≥18 years with positive nucleic acid test for SARS-CoV-2 randomized to the HCQ arm will receive</p>	<p>Duration of viral shedding [Time Frame: Days 1-14]</p>	<p>Recruiting</p> <p>Estimated Primary Completion Date: April 2022</p>	<p>Medium</p>

			HCQ 400mg po BID x 1 day, then 200mg po BID x 4 days or placebo			
Sarilumab, Azithromycin, Hydroxychloroquine  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04341870  (CORIMUNO-VIRO)	France, Paris (4 hospitals)	Phase 2/3 bayesian, open-label, randomized 1:1 clinical trial of Sarilumab in combination with Azithromycin and HCQ compared to only Sarilumab  N=60, patients with moderate, severe COVID-19 pneumonia	Need for ventilation (invasive and non-invasive), intensive care or death [time frame: 14 days]	Recruiting  Estimated primary completion date: May 2020	Medium
Hydroxychloroquine  Sponsor: Tan Tock Seng Hospital	NCT04342156	Singapore	Phase 3, Open-label, randomized trial of HCQ as prophylaxis for at-risk population  N=3000  Group one: Oral HCQ post-exposure-prophylaxis taken over 5 days Group two: no treatment	Number of infected household contacts of confirmed COVID-19 patients under home quarantine.  Positive serology or reverse transcriptase (RT-PCR) for COVID-19 up until day 28	Not yet recruiting  Estimated primary completion date: August 2020	Medium
Hydroxychloroquine sulfate, Chloroquine sulfate, Azithromycin  Sponsor: Washington University School of Medicine	NCT04341727  202003188	USA	Phase 3, open-label, randomized, 4-armed trial.  N=500 non-critically ill hospitalized participants (not requiring mechanical ventilation) with SARS CoV-2 infection randomized to hydroxychloroquine or chloroquine with or without azithromycin.	Hours to recovery [ Time Frame: 42 days ]	Recruiting  Estimated Primary Completion Date: April 1, 2021	Medium
Hydroxychloroquine, Oseltamivir and Azithromycin  Sponsor: Shehnoor Azhar, Federal Task Force on Science & Technology notified by Government of Pakistan	NCT04338698	Pakistan	Adaptive, double blinded, randomized controlled trial. 8 arm study N=500 randomised to: Hydroxychloroquine, Azithromycin, Oseltamivir, Hydroxychloroquine + Azithromycin, Hydroxychloroquine + Oseltamivir, Azithromycin + Oseltamivir, Hydroxychloroquine + Azithromycin + Oseltamivir, or No intervention	Test negative day 7  The clinical primary outcome will be improvement of two points on a seven-category ordinal scale.	Not yet recruiting;  Estimated primary completion: Sept 2020	Medium
Hydroxychloroquine vs azithromycin	NCT04334382	United States, Utah	Open label randomised controlled trial. N=1550 outpatients with COVID-19 randomised to hydroxychloroquine or azithromycin	Hospitalization within 14 days of enrollment	Recruiting; Estimated Primary Completion: December 31, 2020	Medium
Hydroxychloroquine vs Vitamin C	NCT04334967	United States, Oregon	Open label randomised controlled trial.	Total Hospitalization [ Time Frame: 14 days ]	Enrolling by invitation;	Medium

			N?1250 with COVID-19 randomised to hydroxychloroquine or vitamin C	Total Mechanical Ventilation [ Time Frame: 14 days ]	Estimated Primary Completion: September 30, 2021	
Hydroxychloroquine sulphate	ISRCTN86534580 <a href="https://doi.org/10.1186/ISRCTN86534580">https://doi.org/10.1186/ISRCTN86534580</a>  Platform Randomised trial of Interventions against COVID-19 In older people (PRINCIPLE)  NB. The ISRCTN registry is a primary clinical trial registry recognised by WHO and ICMJE that accepts all clinical research studies (whether proposed, ongoing or completed), providing content validation and curation and the unique identification number necessary for publication.	UK multi-centre, GP practices, sponsored by Office of the Chief Medical Officer (Government), led by Oxford University (Different study from NCT04303507)	RCT Part of a Platform trial: suspected coronavirus infection in people aged 50 years and above with pre-existing conditions and those aged 65 years and above Drug: Hydroxychloroquine Comparator is usual care.	Primary outcome measure  The need for hospital admission or death, for patients aged ≥50 years with comorbidity, and aged ≥65 with or without comorbidity and suspected COVID-19 infection during time of prevalent COVID-19 infections, measured by hospital admission or mortality related to suspected COVID-19 within 28 days	Recruiting Overall trial start date 12/03/2020  Overall trial end date 24/03/2021	Medium
Hydroxychloroquine + azithromycin	NCT04335552	United States, North Carolina	a phase II, randomized, open-label, incomplete factorial with nested randomization clinical trial N=500 hospitalised patients with COVID-19 randomised to Standard of care alone Standard of care plus hydroxychloroquine Standard of care plus azithromycin Standard of care plus hydroxychloroquine plus azithromycin	World Health Organization (WHO) ordinal scale measured at 14 days after enrollment	Not yet recruiting; Estimated Primary Completion Date :August 1, 2020	Medium
Hydroxychloroquine	Eudract: 2020-001270-29	3 EU memberstates CZ (Ongoing) GB (Ongoing) FR (Ongoing) Denmark	An adaptive Phase 2/3, randomized, open-label study assessing efficacy and safety of hydroxychloroquine for hospitalized patients with moderate to severe COVID-19 N=350 randomised to hydroxychloroquine or standard of care	Phase 2: Change in SpO2/FiO2 ratio from baseline to Day 15. Phase 3 (may be reassessed after review of phase 2): Change in SpO2/FiO2 ratio from baseline to Day 15	Ongoing	Medium
Chloroquine	NCT04333628	Israel	A Two Staged, Multicenter, Open Label and Randomized Trial	change in the extent and duration of virus shedding;	Not yet recruiting;	Medium

			N= 210 participants randomised to Chloroquine regular dose Chloroquine low dose placebo	change in the number of patients going from asymptomatic to moderately disease	Estimated Primary Completion: April 2021	
Hydroxychloroquine vs Azithromycin	NCT04329832	United States, Utah	A prospective Pragmatic randomised Trial. N=300 hospitalised patients with COVID-19 randomised to Hydroxychloroquine vs Azithromycin	COVID Ordinal Outcomes Scale at 14 days [ Time Frame: Assessed once on day 14 after enrollment]	Not yet recruiting; Estimated Primary Completion: December 31, 2020	Medium
Hydroxychloroquine	NCT04330144	South korea	Post exposure prophylaxis. Open label randomised controlled trial. N=2486 participants exposed to SARS-CoV-2 Randomised to Hydroxychloroquine or quarantine	The rate of COVID-19	Not yet recruiting; Estimated Primary Completion: March 30, 2021	Medium
Hydroxychloroquine	NCT04330495	Spain	Randomized, Controlled, Double-blind Clinical Trial in patients with inflammatory disease Under Biological Treatment and / or JAK Inhibitors N=800 randomised to Hydroxychloroquine or placebo	Incidence rate and prevalence of COVID-19 cases in both arms; Mortality rate; Intensive Care Unit admissions;	Not yet recruiting; Estimated Primary completion: November 6, 2020	Medium
Hydroxychloroquine + Azithromycin	NCT04328272	Pakistan	Open label randomised, placebo-controlled trial. N= 75 patients with Mild to severe COVID-19 randomised to Hydroxychloroquine, Hydroxychloroquine + Azithromycin, or placebo	National Early Warning Score equal to zero [ Time Frame: 3-5 Days ]	Not yet recruiting; Estimated Primary Completion; May 28, 2020	Medium
Hydroxychloroquine + Azithromycin Sponsor: Population Health Research Institute	NCT04324463	Ontario, Canada	Open-label, parallel group randomized controlled trial N=1500 patients with COVID-19 randomised to Hydroxychloroquine + Azithromycin or standard of care	Hospital Admission or Death	Not yet recruiting; Estimated Primary Completion: September 30, 2020	Medium
Hydroxychloroquine Sulfate	NCT04316377	University Hospital, Akershus, Norway	An Open Label Randomized Controlled Pragmatic Trial N=202 hospitalised patients with moderate to severe covid-19 randomised to hydroxychloroquine, or placebo	Rate of decline in SARS-CoV-2 viral load [ Time Frame: Baseline (at randomization) and at 96 hours ]	Not yet recruiting; Estimated Primary Completion: April 1, 2021	Medium
Hydroxychloroquine + azithromycin Sponsor: Hospital Israelita Albert Einstein	NCT04321278	Brazil, multicentres	Open label randomised controlled trial . N=440 COVID-19 patients who require oxygenation and/or ventilation randomised to Hydroxychloroquine + azithromycin, or	Clinical status o a 7-point scale [ Time Frame: 15 days after randomization ]	Recruiting; Estimated Primary Completion: August 30, 2020	Medium

			Hydroxychloroquine			
Phosphoric Chloroquine Sponsor: Jingzhou Central Hospital	ChiCTR2000029826 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49481">http://www.chictr.org.cn/showproj.aspx?proj=49481</a>	Hubei, China	Randomised double blinded trial. Serious or critically ill patients randomised to chloroquine (n=30) or placebo (n=15)	Mortality rate	Not yet recruiting. From 2020-02-17 To 2020-03-17	Medium
Chloroquine Sponsor: Jingzhou Central Hospital	ChiCTR2000029837 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49495">http://www.chictr.org.cn/showproj.aspx?proj=49495</a>	Hubei, China	A randomised, double-blind, parallel, controlled trial Mild or moderate covid19 Randomised to hydroxychloroquine (n=80) or Placebo (n=40)	Time of conversion to be negative of novel coronavirus nucleic acid	Not yet recruiting; From 2020-02-17 To 2020-03-17	Medium
Phosphoric chloroquine The Sixth Affiliated Hospital of Guangzhou Medical University (Qingyuan People's Hospital)	ChiCTR2000030031; <a href="http://www.chictr.org.cn/showproj.aspx?proj=49806">http://www.chictr.org.cn/showproj.aspx?proj=49806</a>	Guangdong, China	A randomised, double-blind, parallel, controlled trial N=120 patients with mild and moderate covid-19 randomised to phosphoric chloroquine (n=80) or placebo (n=40)	Time of conversion to be negative of novel coronavirus nucleic acid	Recruiting;  From 2020-02-20 To 2021-03-20	Medium
Hydroxychloroquine Non-commercial	2020-000890-25 <a href="https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000890-25/FR#B">https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000890-25/FR#B</a>	France	Single arm? Patients with documented respiratory infection with coronavirus SARS COV 2 N=25	Results of SARS-COV2 virus detection (Day 1, Day 4, Day 7 and Day 14)	last visit of the last participant.	Medium
Hydroxychloroquine Sponsor: Rambam Health Care Campus	NCT04323631	Israel	Open label randomised trial. N= 1116 patients with mild to moderate COVID-19	Number patients developing severe infection or death	Not yet recruiting; Estimated Primary Completion: December 2020	Medium
Hydroxychloroquine + azithromycin	NCT04322123	Brazil	An Open-label, Randomized Controlled Trial. N=630 hospitalised patients with COVID-19 randomised to Hydroxychloroquine + azithromycin Hydroxychloroquine, or standard care	Clinical status of patients on the 15th day after randomization defined by the Ordinal Scale of 6 points.	Not yet recruiting; Estimated Primary Completion: August 30 2020	Medium
Hydroxychloroquine vs Ascorbic Acid	NCT04328961	New York and Washington	Post-exposure prophylaxis. Single blinded randomised controlled trial. N=2000 Adults Exposed to Coronavirus Disease randomised to Hydroxychloroquine vs Ascorbic Acid	Polymerase chain reaction (PCR) confirmed SARS-CoV-2 infection day 14 and day 28	Not yet recruiting;  Estimated Primary Completion; September 30, 2020	Medium
Hydroxychloroquine Sponsor: Wroclaw Medical University	NCT04331600 QUARANTINE2020	Not stated	Multicenter, Randomized, Open-label trial. N=400 ambulatory patients with COVID- 19 randomised to	COVID-19-related hospitalization or all- cause death [ Time Frame: 15 days ]	Not yet recruiting; Estimated Primary Completion: September 30, 2020	Medium

			hydroxychloroquine + telemedicine, or telemedicine			
Hydroxychloroquine	Hydro-Stop-COVID19 Trial Hydroxychloroquine + SM vs. standard medications. <a href="https://www.aifa.gov.it/web/guest/-/covid-19-aifa-autorizza-nuovo-studio-clinico-sull-idrossiclorochina">https://www.aifa.gov.it/web/guest/-/covid-19-aifa-autorizza-nuovo-studio-clinico-sull-idrossiclorochina</a> <a href="https://www.aifa.gov.it/documents/20142/1131319/Hydro-Stop_Documenti.zip">https://www.aifa.gov.it/documents/20142/1131319/Hydro-Stop_Documenti.zip</a>	IT, Ascoli Piceno.	Out-of-Hospital symptomatic confirmed SARS-CoV-2 patients will be included in a pragmatic, randomized, open-label, between-patient trial. 216 participants treated with either hydroxychloroquine + SM vs. SM. Treatment: Hydroxychloroquine 400 mg loading dose the first day, followed by 200 mg for 6 days + SM vs. standard medications according to current guidelines Inclusion criteria: 1. Patients with SARS-CoV-2 infection in a nasopharyngeal sample, with diagnosis carried out in a centralized core-lab. 2. Patients confined at home because their clinical picture was judged by the local Health authorities not severe enough to require hospitalization. 3. Patients with 1 or more of the following symptoms/signs on the day of nasopharyngeal sample: 1) Fever (>37.0° Celsius); 2) Dyspnea; 3) Cough. Interim analysis will be performed on the data from the first 50 patients following two weeks of leronlimab therapy.	Virologic clearance at day 8. Co-primary end-point: Hospital admission over the time-interval between day 0 and day 15	Not stated	Medium
Chloroquine Phosphate  Sponsor: Zhongnan Hospital of Wuhan University	ChiCTR2000030718	China, Hubei, Wuhan	Open-label randomized parallel controlled trial.  N=80 adult patients with confirmed COVID19 randomized 1:1 to chloroquine phosphate or none (control group).	Time to Clinical Recovery	Recruiting  Study execute time: 2020-02-12 to 2020-05-30	Medium
Hydroxychloroquine and vitamin C  Sponsor: Stony Brook University	NCT04347889	Not stated	Phase 2, open-label, randomized study to evaluate prophylactic hydroxychloroquine vs vitamin C.  N = 1212 healthcare workers at risk of Covid-19 randomized in a 2:1 ratio to hydroxychloroquine or vitamin C	COVID-19 Seroconversion rate [ Time Frame: 3 months ]	Not yet recruiting  Estimated Study Completion Date: December 30, 2020	Medium

Hydroxychloroquine + Azithromycin	NCT04349592	Qatar	Randomised, doubleblinded placebocontrolled trial. N=456 patients with COVID-19 randomised to Hydroxychloroquine + Azithromycin, Hydroxychloroquine + placebo, or placebo + placebo	Proportion of virologically cured (no virus detected) cases at day 6 [ Time Frame: Day 6 ]	Not yet recruiting; Estimated Primary Completion Date : May 14, 2020	Medium
Hydroxychloroquine and Nitazoxanide  Sponsor: Tanta University	NCT04361318	Egypt	Phase 2/3, double-blind, randomized controlled parallel study evaluating safety and efficacy of Hydroxychloroquine and Nitazoxanide combination as adjuvant therapy in Covid-19 newly diagnosed Egyptian patients.  N=100 adult covid-19 patients randomized to Hydroxychloroquine + Nitazoxanide or standard care.	Number of patients with COVID-19-negative PCR [ Time Frame: within 10 days to become PCR negative ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium
Hydroxychloroquine  Sponsor: Universidad Peruana Cayetano Heredia	NCT04414241	Peru	Phase 3 Randomized Controlled, Open-label of Hydroxychloroquine prophylactic.  N=320 Healthcare workers in service with negative COVID-19. Randomized to 600 mg first day and 400 mg every-other-day.	Efficacy: Proportion of participants with positive molecular or serologic testing for SARS-CoV-2 [ Time Frame: Eight weeks ]	Not yet recruiting  Estimated Primary Completion Date: September 2020.	Low
Hydroxychloroquine  Sponsor: Postgraduate Institute of Medical Education and Research	NCT04408456	India	Phase 3, non-randomized, open-label study on the efficacy of Hydroxychloroquine as Post Exposure Prophylaxis for Prevention of COVID-19 in asymptomatic individual at risk for SARS-CoV-2 Infection.  N=200  Post Exposure Prophylaxis (PEP) Group: Standard therapy in the form of home quarantine for 2 weeks along with social distancing and personal hygiene Plus Tablet HCQ 400 mg q 12 hourly on day one followed by 400 mg once weekly for 3 weeks (total cumulative dose of 2000 mg)  Control group: Standard therapy in the form of home quarantine for 2 weeks	1. Incidence confirmed case of COVID-19 [ Time Frame: 2 weeks ]  2. Incidence of probable case of COVID-19 [ Time Frame: 2 weeks ]	Recruiting  Estimated Primary Completion Date : June 30, 2020	Low

			along with social distancing and personal hygiene			
Hydroxychloroquine Sponsor: Nucleo De Pesquisa E Desenvolvimento De Medicamentos Da Universidade Federal Do Ceara	NCT04384458	Brazil	An open-blind, non-randomised trial to evaluate if hydroxychloroquine associated with zinc is effective as a prophylaxis compared standard care.  N = 400 high-risk healthcare workers involved in suspected, or confirmed cases of COVID-19	1. Proportion of participants in whom there was a clinical finding of COVID-19. [ Time Frame: Day 50 ] 2. Symptomatic COVID-19 infections. [ Time Frame: Day 50 ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Low
Hydroxychloroquine Sulfate, Ritonavir/lopinavir, Tocilizumab, Azithromycin, Corticosteroid, Low molecular weight heparin, Oxygen supply, Radiation  Sponsor: Grupo de Investigación Clínica en Oncología Radioterapia	NCT04380818	Spain	A non-randomized, open-label study to evaluate the efficacy of low-dose lung irradiation as an adjunctive treatment in interstitial pneumonia  N = 106 patients with COVID-19 Comparative phase in two groups, a control group, which will only receive pharmacological treatment, and an experimental one. It will include 96 patients, the allocation will be 1: 2, that is, 32 in the control arm and 64 in the experimental arm, which will receive low-dose lung irradiation.	Efficacy of low-dose pulmonary irradiation assessed by change in PAFI O2 by 20% [ Time Frame: Day 2 after interventional radiotherapy ]	Recruiting  Estimated Primary Completion Date: May 4, 2021	Low
Hydroxychloroquine and azithromycin  Sponsor: Hospital St. Joseph, Marseille, France	NCT04365231	France	A phase 3, randomized, open-label trial to evaluate efficacy of hydroxychloroquine-azithromycin treatment in preventing aggravation of symptoms with development of hypoxemic respiratory failure and complications of pregnancy.  N = 50 pregnant women	Percentage of patients with a negative RT-PCR test result to COVID-19 [ Time Frame: 7 days ]	Not yet recruiting  Estimated primary Completion Date: June 2020	Low
Hydroxychloroquine  Sponsor: Texas Cardiac Arrhythmia Research Foundation	NCT04371926	United States?	A randomized, single-blinded study to evaluate the prophylactic efficacy of HCQ in COVID-19 cases compared to no-treatment.  N = 64 patients with mild to moderate symptoms and healthcare workers with high exposure risk	1. Time to reach normal body temperature [Time Frame: 1 month ] 2. Development of COVID-19 symptoms during HCQ preventive therapy in staff [ Time Frame: 1 month ]	Not yet recruiting  Estimated Study Completion Date: July 2021	Low
Hydroxychloroquine  Sponsor:	EudraCT: 2020-001501-24  NCT04363827	Italy	Phase 2, open label, cluster-randomised trial evaluating the role of Hydroxychloroquine versus observation only in preventing infection to COVID-	1. The proportion of subjects of Group 1 who become symptomatic and/or swab positive in each arm within 1 month from randomization.	Not yet recruiting  Estimated Primary Completion Date according to	Low

Istituto Scientifico Romagnolo per lo Studio e la cura dei Tumori	PROTECT		<p>19 or treating early phase COVID-19 patients</p> <p>N=2000 COVID-19 index cases randomized 2:1 to hydroxychloroquine or observation (arm A+B) + for each COVID-19 index case, 1.5-2.0 healthy subjects, cohabitants and/or contacts.</p> <p>Study population is constituted by: Group 1: Healthy subjects, cohabitants and/or contacts of COVID-19. Group 2: Patients with COVID-19 asymptomatic or paucisymptomatic in home situation.</p>	2. The proportion of subjects of Group 2 who become swab negative in each arm within 14 days from randomization.	clinicaltrials.org: September 2020 According to protocol: LP off treatment: October 2020	
Chloroquine Sponsor: Tanta University	NCT04353336	Egypt	<p>Phase 2/3, open-label, randomized trial on the efficacy of Chloroquine in Covid-19 treatment</p> <p>N = 40, all ages, with Covid-19 infection</p>	Number of patients with virological cure [Time Frame: 6 months]	Not yet recruiting  Estimated Primary Completion Date, December 1, 2020	Low
Hydroxychloroquine Sponsor: Univeristy of South Alabama	NCT04353271	United States, Alabama	<p>Phase 2/3, double-blinded, placebo-controlled, randomized trial on the use of HCQ in Covid-19 infection</p> <p>N = 58, age &gt; 18, with Covid-19 infection, not requiring hospitalization, randomized to HCQ for 4 days or placebo</p>	<p>1. Percentage of virus free subjects [Time Frame: 7 days after initiation of trial]</p> <p>2. Disease severity [Time Frame: 6 days]</p>	Active, not recruiting  Estimated Primary Completion Date: July 1, 2020	Low
Hydroxychloroquine (HCQ) Sponsor: NYU Langone Health	NCT04354870	United States, New York	<p>Phase 2, non-randomized, open-label trial to to evaluate the efficacy of HCQ for pre-exposure prophylaxis (PrEP) to prevent SARS-CoV-2 infection among health care workers who are at high risk of occupational Exposure to SARS-CoV-2</p> <p>HCQ Group (n=300): health care workers who choose to be provided HCQ.</p> <p>Control group (n=50): health care workers who choose NOT to be provided HCQ.</p>	Frequency of seroconversion to SARS-CoV-2 [ Time Frame: baseline, 30 days, 60 days, 90 days ]	Recruiting  Estimated Primary Completion Date: August 1, 2020	Low
Hydroxychloroquine	2020-001536-98	Spain	<p>Open label study. N=300 healthcare personnel with high risk of infection will be treated with</p>	1. Incidence of symptomatic healthcare professionals with positive PCR between day 15 and day 30 of inclusion in the study. Health	Ongoing by 28.04.2020 Estimated study duration: 5 months	Low

Sponsor: HOSPITAL UNIVERSITARI MÚTUA TERRASSA			hydroxychloroquine. Those who refuse treatment will serve as control group	professionals with high risk of transmission taking prophylaxis (GroupA) and the control group of high risk health professionals who decide not to take it (Group C1) will be compared. 2. Incidence of symptomatic healthcare professionals with positive PCR between day 15 and day 30 of inclusion in the study. Professionals with high risk of transmission taking prophylaxis (Group A) and the control group of professionals with low risk of transmission (Group C2) will be compared.		
Hydroxychloroquine and chloroquine  Sponsor: Peking University Third Hospital	ChiCTR2000031376	China, Beijing	Medical records based study to determine the effect of Hydroxychloroquine and chloroquine  N = 600 patients aged 18 to 75 years with RT-PCR confirmed infection with 2019-nCoV	Safety and Effectiveness	Recruiting  From 2020-03-28 To 2020-05-29	Low
Hydroxychloroquine, Azithromycin  Sponsor: Abderrahmane Mami Hospital	NCT04351919	Tunisia (multicenter)	Phase 4, Single Group Assignment, open-label trial on the efficacy and safety of hydroxychloroquine and azithromycin administered to covid-19(+) patients in Tunisia.  N=400 assigned to Hydroxychloroquine (400mg per day during 10 days) + Azithromycin (500 mg per day during 5 days).	1. improvement or healing of clinical signs [ Time Frame: at the end of the study treatment - 1 month after inclusion ]  2. Evolution of clinical signs [ Time Frame: at the end of the study treatment - 1 month after inclusion ]	Not yet recruiting  Estimated Primary Completion Date: July 15, 2020	Low
Hydroxychloroquine  Sponsor: University of Chicago	NCT04351620	United States, Illinois	A phase I, single arm, open-label study of high dose HCQ therapy in outpatient adult participants with mild COVID-19.  N = 20 patients with COVID-19 who are not yet hospitalized, but have risk factors for disease progression and complications.	1.Tolerability of high dose HCQ as measured by HCQ dose modification. 2.Tolerability of high dose HCQ as measured by discontinuation of HCQ 3. Tolerability of High Dose HCQ as measured by Adverse Events	Recruiting  Estimated Study Completion Date: June 2020	Low
Hydroxychloroquine, Chloroquine  Sponsor: University of Alberta	NCT04347798	Canada, Alberta	Observational, Case-Control study evaluating the impact of anti-malarial drugs (eg. hydroxychloroquine and chloroquine) on the development of COVID-19 compared to those patients	1.Impact of anti-malarials on the development and severity of Covid-19 in the anti-malarial group compared to the non-anti-malarial group [ Time Frame: 12 months ]	Enrolling by invitation  Estimated Primary Completion Date: April 2021	Low

			<p>who are not on anti-malarial drugs over the next 6-12 months.</p> <p>N=500 (Anti-malarial group: Inflammatory arthritis patients on biologic + anti-malarial; Non-anti-malarial group: Inflammatory arthritis patients on biologic + NO anti-malarial)</p>			
Hydroxychloroquine Sponsor: Oregon Health and Science University	NCT04363866	United States, Oregon	<p>A phase 4, prospective, randomized, single-blinded, placebo-controlled, pilot study to assess the preliminary efficacy and safety of hydroxychloroquine.</p> <p>N = 40 patients with lower respiratory tract SARS-CoV-2 infection randomized 1:1 to receive either hydroxychloroquine or placebo control.</p>	Clinical Status at Day 5 Assessed by a 6-Point Ordinal Scale [ Time Frame: Day 5 ]	Not yet recruiting Estimated Study Completion Date: June 2021	low
Hydroxychloroquine; Sponsor: Montefiore Medical Center	NCT04350450	United States, New York	<p>Non-randomised, open label, parallel trial. N=100 high risk health care workers with COVID-19. Allocated to hydroxychloroquine. Those who opt not to receive the study drug will serve as control group</p>	Time to resolution of symptoms [ Time Frame: up to 4 weeks ]	Not yet recruiting; Estimated Primary Completion: August 2020	Low
Hydroxychloroquine Sponsor: Universidad Nacional de Colombia	NCT04346329	Colombia	<p>PILOT STUDY, a Phase III double-blind, randomized, placebo-controlled clinical study in which we assess the clinical effect of the prophylactic administration of hydroxychloroquine vs. placebo N = 86 healthcare workers working at the University Hospital (HUN) randomized 1:1.</p>	Adverse effects [ Time Frame: six months after administration of hydroxychloroquine or placebo ]	Not yet recruiting Estimated Study Completion Date: October 1, 2020	Low
Hydroxychloroquine Sponsor: Hackensack Meridian Health	NCT04345653	United States, New Jersey	<p>Phase 2 open label clinical trial to evaluate the Feasibility, Safety and Early Efficacy of Hydroxychloroquine as Primary Prevention of Corona Virus Disease 2019 in High Risk Health Care Providers</p> <p>N = 45 age 18 to 99 years high-risk healthcare care providers to HCQ sulfate HCQ 400mg (2x 200mg tablets) by mouth 6-12 hours apart on day 1,</p>	<p>A) Recruitment Feasibility and Recourse utilization [Time Frame: Study period, up to two months from the day the first participant was screened]</p> <p>B) Safety as reflected on the number and severity of adverse events and serious adverse events and Early feasibility as reflected on the number of participants contracting COVID-19 (10% or less) in comparison to the expected</p>	Enrolling by invitation Estimated study completion April 8, 2022s	Low

			followed by 3 weeks of weekly 400mg (2x 200mg tablets) by mouth.	30% as per CDC [Time Frame: 28 day post enrollment]		
Hydroxychloroquine Sponsor: Queen's Medical Centre	NCT04345692	United States, Hawaii	Randomized, open label clinical trial. N=350 patients randomized to hydroxychloroquine or usual care	Clinical Status (on a 7-point ordinal scale) at day 15	Recruiting; Estimated Primary Completion; December 31, 2021	Low
UNIKINON (Chloroquine phosphate)  Sponsor: Uni-Pharma Kleon Tsetis Pharmaceutical Laboratories S.A.	NCT04344951  HOPE	Greece	Phase 2, non-randomized, open label clinical trial.  N = 60 patients with SARS-CoV-2 virus infection.	50% reduction in symptom score for patients with lower respiratory tract infection [ Time Frame: Day 8 visit from study initiation ]  Lack of progression for patients with upper respiratory tract infection [ Time Frame: Day 8 visit from study initiation ]	Recruiting  Estimated Study Completion Date: April 30, 2021	Low
Chloroquine Favipiravir Nitazoxanide Ivermectin Niclosamide	NCT04345419	Egypt	Open label randomized controlled trial N=100 patients with COVID-19 randomised to Chloroquine, Favipiravir, Nitazoxanide, Ivermectin, or Niclosamide	Number of patients with decreased viral load [ Time Frame: 6 months ]	Not yet recruiting; Estimated Primary Completion: December 2029?	Low
Hydroxychloroquine, Indomethacin, Zithromax Oral Product  Sponsor: Perseverance Research Center, LLC	NCT04344457	United States, Arizona	Open-label, single-arm study.  N=80 subjects positive with SARS-CoV-2 with mild symptoms.  Hydroxychloroquine (200 mg PO BID 5 days) Indomethacin (50 mg PO TID 14 Days) Zithromax Oral Product (500 mg PO QD 3 Days)	Improvement of clinical status [ Time Frame: up to 28 days ] Measured by time (days) required from initiation of treatment to improvement of clinical status from mild to symptom free.	Recruiting  Estimated Primary Completion Date: June 20, 2020	Low
Hydroxychloroquine  Sponsor: Institut Català d'Oncologia	2020-001765-37	Spain	Phase 2, open label, pragmatic clinical trial to evaluate the efficacy of hydroxychloroquine in the treatment of COVID-19 infection in two cohorts: patients with oncohaematological disease and SARS-CoV-2 positive without radiological alteration and sars-cov-2 positive professionals without radiological alteration.  N = 103 patients or professionals age > 18 with PCR confirmed COVID-19.	Percentage of patients (cohort A) and professionals (cohort B) who achieve control of the disease without symptoms in 14 days, assessed by chest radiography without pneumonia	Ongoing  Start date: 2020-04-11  Estimate of duration: 4 months	Low

Nitazoxanide + hydroxychloroquine Sponsor: Hugo Mendieta Zeron	NCT04341493 2020-03-681	Mexico	Randomized, single-blinded trial.  N=86 COVID-19 patients with risk factors to get complicated: age more than 60 years old, diabetes mellitus or obesity grade II or more randomized to Nitazoxanide + hydroxychloroquine or Hydroxychloroquine	Mechanical ventilation requirement [ Time Frame: Since the diagnosis until two weeks after ] Percentage of patients COVID-19 positive that required mechanical ventilation	Recruiting  Estimated Primary Completion Date: August 30, 2020	Low
Hydroxychloroquine + Azithromycin Sponsor: Gustave Roussy, Cancer Campus, Grand Paris	NCT04341207 2020-001250-21	France	Phase 2, non-randomized, open-label trial.  N=1000 advanced cancer patients divided into 4 cohorts.  SARS-CoV-2 positive test & Covid19 symptoms: Hydroxychloroquine+ Azithromycin  SARS-CoV-2 negative test & Covid19 symptoms. Patients with a chest CT-scan compatible with Covid19 disease shall be treated in part B: no intervention  SARS-CoV-2 positive or negative test & no Covid19 symptoms: no intervention  SARS-CoV-2 positive test AND chest CT-scan compatible with Covid19 disease & no Covid19 symptoms & Pretreated or with frail conditions following the HCSP definition: Hydroxychloroquine	1. Prevalence and the 3-months incidence of SARS-CoV-2 in cancer patients [ Time Frame: Up to 3 months ]  2. Covid-19 disease-specific mortality rate in cancer patients treated by hydroxychloroquine and azithromycin [ Time Frame: Up to 12 months ]	Recruiting  Estimated Primary Completion Date: April 2022	Low
Hydroxychloroquine and Bromhexine Sponsor: Instituto Nacional de Rehabilitacion	NCT04340349	Mexico, National Institute of Rehabilitation	Prophylaxis. Randomised, double blinded, controlled trial N=100 healthcare professionals with high exposure to covid-19 patients randomised to hydroxychloroquine + bromhexine or bromhexine	PCR negative at day 0, 30 and 60	Not yet recruiting; Estimated Primary Completion: June 9, 2020	Low
Hydroxychloroquine + vitamin C + Vitamin D + Zinc	NCT04334512	United States, California	An Open Label Phase II Pilot Study of Hydroxychloroquine, azithromycin, Vitamin C, Vitamin D, and Zinc for the Prevention of COVID-19 Infection. N=600 patients diagnosed with SARS-CoV-2	Negative Test and resolution of symptoms [ Time Frame: 24 weeks ] Safety of Quintuple Therapy [ Time Frame: 24 weeks ]	Not yet recruiting; Estimated Primary Completion: April 2021	Low

Hydroxychloroquine + azithromycin + vitamin C + Vitamin D + Zinc	NCT04335084	United States, California	An Open Label Phase II Pilot Study of Hydroxychloroquine, Vitamin C, Vitamin D, and Zinc for the Prevention of COVID-19 Infection. N=600 health care workers exposed to SARS-CoV-2	Negative testing with RT-PCR [ Time Frame: 24 weeks ]  Safety as determined by blood pressure readings [ Time Frame: 24 weeks ]  Safety as determined by presence of side effects [ Time Frame: 24 weeks ]	Not yet recruiting;  Estimated Primary Completion: April 2021	Low
Hydroxychloroquine	NCT0433225	United States, Texas	Randomised, open label trial. N=360 health care workers exposed to SARS-CoV-2 randomised to hydroxychloroquine or no treatment	Rate of COVID-19 positive conversion on weekly nasopharyngeal (NP) sampling	Recruiting; Estimated Primary Completion: July 30, 2020	Low
Hydroxychloroquine + Azithromycin	NCT04329572	Brazil	Open, Multicentric, Non-Randomized, Exploratory Clinical Trial Single group assignment. Hospitalised patients will be treated with HCQ and Azithromycin	Evolution of acute respiratory syndrome, oxygen saturation hemodynamic stability [ Time Frame: 28 days ]	Not yet recruiting; Estimated Primary Completion: May 31, 2020 Update 06.05.2020: suspended, the CRO lost interest in the study	Low
Chloroquine phosphate	NCT04328493	Hanoi, and Ho Chi Minh City, Vietnam	A Multi Center Randomized Open Label Trial N=250 hospitalised patients with COVID-19 stratified by study site and severity of illness randomised to chloroquine or standard care	Viral clearance time [ Time Frame: Up to 56 days post randomization ]	Estimated Primary Completion: April 1, 2021	Low
Chloroquine vs lopinavir/ritonavir	ChiCTR2000029609 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49145">http://www.chictr.org.cn/showproj.aspx?proj=49145</a>	Guangdong, China	A prospective, open-label, multiple-center study of patients with Covid-19 stratified by severity.  Mild symptoms randomised to chloroquine phosphate (n=59) lopinavir/ritonavir (59), or Chloroquine + lopinavir/ritonavir (59)  Severe symptoms randomised to Chloroquine phosphate (n=14) or lopinavir/ritonavir (n=14)	Primary Outcome(s) virus nucleic acid negative-transforming time;	From2020-02-10 To 2020-12-31	Low
Chloroquine and lopinavir/ritonavir	ChiCTR2000029741 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49263">http://www.chictr.org.cn/showproj.aspx?proj=49263</a>	Guangdong, China	Open label study N=112 cases with Confirmed Covid-19 randomised to Chloroquine, or Lipinavir/ritonavir	Several primary outcomes are stated: length of stay, mortality and other	Recruiting; From2020-02-12 To 2020-12-31	Low
Chloroquine	ChiCTR2000029740	Tongji hospital, Hubei, China	Open label COVID-19	Oxygen index, respiratory rate, lung radiography, lymphocyte count at sees 1,2,3,and 4.	Recruiting From2020-02-11 To 2020-02-29	Low

	<a href="http://www.chictr.org.cn/showproj.aspx?proj=49317">http://www.chictr.org.cn/showproj.aspx?proj=49317</a>		Randomised to hydroxychloroquine 0.2 mg bid (n=52), or conventional therapy (n=24)			
Chloroquine	ChiCTR2000029939 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49612">http://www.chictr.org.cn/showproj.aspx?proj=49612</a>	Zhejiang, China	Single-blind, Randomised, Controlled Clinical Trial  N=100 patients with covid-19 (severity unknown), randomised to chloroquine phosphate or placebo	Length of hospital stay	Recruiting; From2020-02-06 To 2021-02-06	Low
Chloroquine	ChiCTR2000029935 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49607">http://www.chictr.org.cn/showproj.aspx?proj=49607</a>	Zhejiang, China	Single arm study, N=100 patients with covid-19 (severity unknown), treated with chloroquine phosphate	Length of hospital stay	Recruiting; From2020-02-06 To 2021-02-06	Low
Hydroxychloroquine sulfate vs phosphate chloroquine	ChiCTR2000029899 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49536">http://www.chictr.org.cn/showproj.aspx?proj=49536</a>	Hubei, China	Randomised, Open-label, Parallel, Controlled Trial N=100 with mild or moderate covid-19 randomised to Hydroxychloroquine sulfate, or phosphate chloroquine	Time to clinical recovery (time frame 28 days)	Recruiting; From2020-02-17 To 2020-04-30	Low
Hydroxychloroquine sulfate vs phosphate chloroquine	ChiCTR2000029898 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49482">http://www.chictr.org.cn/showproj.aspx?proj=49482</a>	Hubei, China	Randomised, Open-label, Parallel, Controlled Trial N=100 with severe covid-19 randomised to Hydroxychloroquine sulfate, or phosphate chloroquine	Time to clinical improvement (time frame 28 days)	Recruiting; From2020-02-17 To 2020-04-30	Low
Hydroxychloroquine sulfate vs phosphate chloroquine	ChiCTR2000029992 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49574">http://www.chictr.org.cn/showproj.aspx?proj=49574</a>	Hubei, China	Randomised, Open-label, Parallel, Controlled Trial N=100 with severe covid-19 randomised to Hydroxychloroquine sulfate (n=40), or phosphate chloroquine (n=40), or routine treatment (n=20)	Clinical recovery time (6-point scale); Changes in viral load of upper and lower respiratory tract	Not yet recruiting; From2020-02-17 To 2020-05-20	Low
Chloroquine phosphate	ChiCTR2000029988 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49218">http://www.chictr.org.cn/showproj.aspx?proj=49218</a>	Hubei, China	Open label clinical trial. N=80 patients with severe covid-19 randomised to chloroquine phosphate or no treatment	Time to clinical recovery	Recruiting;  From2020-02-13 To 2020-05-31	Low
Chloroquine phosphate aerosol inhalation	ChiCTR2000029975 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49592">http://www.chictr.org.cn/showproj.aspx?proj=49592</a>	Jilin, China	Single arm study of 10 patients; severity is not defined.	Viral negative-transforming time; 30-day cause-specific mortality	Not yet recruiting;  From2020-02-24 To 2020-05-31	Low
Hydroxychloroquine sulfate vs chloroquine phosphate	ChiCTR2000030054 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49869">http://www.chictr.org.cn/showproj.aspx?proj=49869</a>	Hubei, China	Randomised, Open-label, Parallel, Controlled Trial N=100 with mild or moderate covid-19 randomised to Hydroxychloroquine sulfate (n=40), or phosphate chloroquine (n=40), or routine treatment (n=20)	Clinical recovery time, time frame 28 days	Not yet recruiting; From2020-02-17 To 2020-05-21	Low

Chloroquine	ChiCTR2000029803 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49428">http://www.chictr.org.cn/showproj.aspx?proj=49428</a>	Hubei, China	Prevention. Prospective, randomised, open-label, controlled clinical study to evaluate the preventive effect of hydroxychloroquine on close contacts after exposure (COVID-19) 320 patients randomised to hydroxychloroquine small dose, high dose, abidol small dose or abidol high dose.	Number of patients who have progressed to suspected or confirmed within 24 days of exposure to new coronavirus	Not yet recruiting; From 2020-02-20 To 2021-02-20	Low
Chloroquine phosphate inhalation	ChiCTR2000030417 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50279">http://www.chictr.org.cn/showproj.aspx?proj=50279</a>	Heilongjiang, China	Randomised controlled trial. N=30 patients with covid-19 randomised to chloroquine phosphate aerosol inhalation or water for injection atomization inhalation	Several primary outcomes: Temperature, respiratory symptoms improvement, pulmonary imaging improvement, negative virus test	Not yet recruiting From 2020-03-01 To 2020-06-30	Low
Chloroquine	ChiCTR2000029542 <a href="http://www.chictr.org.cn/showproj.aspx?proj=48968">http://www.chictr.org.cn/showproj.aspx?proj=48968</a>	Guangdong, China	Phase 4, open label, non-randomised  N=20 with covid-19 Treatment: chloroquine or conventional treatment	Viral negative-transforming time, 30-day cause specific mortality	Recruiting  From 2020-02-03 To 2020-07-30	Low
Hydroxychloroquine + Vitamins A, C, D and Zinc	NCT04326725	Turkey	Proflaxis for Healthcare Professionals Using Hydroxychloroquine Plus Vitamin Combining Vitamins A, C, D and Zinc During COVID-19 Pandemia: An Observational Study	No infection within 4 months	Recruiting; Estimated Primary Completion: July 1, 2020	Low
Hydroxychloroquine in combination with azithromycin or sirolimus  Sponsor: King Hussein Cancer Center	NCT04374903	Jordan	A pilot, multicenter randomized open-label trial to evaluate hydroxychloroquine in combination with azithromycin or sirolimus for treating COVID-19 patients  N = 58	Time to Clinical improvement (TTCI) [ Time Frame: 28 Days ]	Not yet recruiting  Estimated Study Completion Date: September 1, 2020	Low
Hydroxychloroquine (HCQ)  Sponsor: Taoyuan General Hospital	NCT04384380	Taiwan	Phase 4, multi-center, randomized, open-label, controlled trial to evaluate the efficacy and tolerability of HCQ in adult patients with mild to moderate COVID-19 vs. standard of care.  N=45 randomized to HCQ or standard of care.	Time to negatively RT-PCR [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: June 30, 2020	Low
Synthetical antimalarial drugs ACE/ARB Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04356417 (TRAPSAH)	France Assistance Publique Hôpitaux de Paris - CHU	Observational study 70,000 patients treated by synthetic AMD  13 million patients treated by ARBs or ACEi's from the French national health	Identification of serious COVID-19 infections [ Time Frame: From 2020/01/01 to 2020/06/30 ]	Not yet recruiting	Low

		Henri Mondor Créteil, France, 94000	insurance database (SNDS) and the French national hospital discharge database (Programme de Médicalisation des Systèmes d'Information, PMSI)			
Hydroxychloroquine	ChiCTR2000029760 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49369">http://www.chictr.org.cn/showproj.aspx?proj=49369</a>	Chongqing	Randomised controlled study N=240 Patients with mild or moderate infectious disease	Time to clinical recovery	Cancelled due to lack of patients	Low
Chloroquine	ChiCTR2000029762 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49404">http://www.chictr.org.cn/showproj.aspx?proj=49404</a>	Chongqing, China	60 patients with severe covid-19	Negative conversion rate of COVID-19 nucleic acid Lung inflammation absorption ratio	Cancelled due to lack of patients	Low
Chloroquine	ChiCTR2000029761 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49400">http://www.chictr.org.cn/showproj.aspx?proj=49400</a>	Chongqing, China	240 patients randomised to 3 different doses of hydroxychloroquine or conventional treatment	Negative conversion rate of 2019-nCoV nucleic acid Lung inflammation absorption ratio	Cancelled due to lack of patients	Low

## Other drugs studied for the treatment or prevention of COVID-19

### Alimentary tract and metabolism

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Bismuth potassium citrate	ChiCTR2000030398 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50173">http://www.chictr.org.cn/showproj.aspx?proj=50173</a>	Hubei, China	A randomized, double-blind, placebo-controlled trial N=340 randomised 1:1 to bismuth potassium citrate or	Conversion rate at day 15	Not yet recruiting	Medium
Dapagliflozin  Sponsor: Saint Luke's Health System	NCT04350593  DARE-19	United States, Missouri	International, Multicenter, Randomized, Double-blind, Placebo-controlled, Phase III Study N=900 hospitalised patients with mild to moderate COVID-19 and at least 1 cardiovascular risk factor randomised to dapagliflozin or placebo	Time to first occurrence of either death from any cause or new/worsened organ dysfunction through 30 days of follow up	Recruiting; Estimated Primary Completion: October 2020	High
Famotidine  Sponsor: Northwell Health	NCT04389567	United States, New York	Observational retrospective, case-only study on Famotidine Use in Non-hospitalized Patients With COVID-19	Symptomatic improvement [Time Frame: 2 weeks]	Active, not recruiting  Estimated Primary Completion Date: May 20, 2020	Low

			N = 10, with confirmed Covid-19 infection using Famotidine during illness			
Linagliptin Sponsor: Rabin Medical Center	NCT04371978	Not stated	Phase 3, randomized, open-label to evaluate the efficacy and safety of Dipeptidyl Peptidase-4 Inhibitors (Linagliptin) in diabetic patients with established COVID-19  N=100 subjects type 2 diabetes mellitus and positive covid-19 randomized to Linagliptin (5 mg po once daily) or standard of care insulin regimen.	Time to clinical change [ Time Frame: 28 days ]	Not yet recruiting  Estimated Study Completion Date: September 30, 2021	Medium
Linagliptin Sponsor: University of Miami	NCT04341935	USA, Florida	Phase 4, open-label, randomized trial.  N=20 type 2 diabetes mellitus patients with mild-moderate COVID-19 randomized to standard of care insulin regimen or Linagliptin (5 mg po) in addition to standard of care insulin regimen.	Changes in Glucose Levels [ Time Frame: Baseline, up to 2 weeks ]	Not yet recruiting (estimated study start April 30, 2020)  Estimated Primary Completion Date: June 30, 2020	Low
Microbiota Sponsor: The First Affiliated Hospital of Guangdong Pharmaceutical University; Guangzhou Eighth People's Hospital	ChiCTR2000032737	China, Guangdong	Trial to explore the efficacy and safety of washed microbiota transplantation in COVID-19 patients suspected with gut microbiota dysbiosis.  Block randomization. Blinding not stated.  N=60 COVID-19 patients accompanied with gastrointestinal symptoms or COVID-19 patients accompanied with antibiotic-associated diarrhea. Randomized 1:1 to routine treatment or washed microbiota transplantation.	SARS-Cov-2 nucleic acid test	Not yet recruiting  From 2020-05-08 To 2021-06-08	Low
Microbiota	NCT04251767	China, Jiangsu	Washed Microbiota Transplantation in Patients With covid19. Quadruple blinded.  N=40 patients with severe infection randomised to Washed microbiota suspension delivered through nasogastric tube, nasojejunal tube or oral, combining with standard therapy, or Placebo	Number of participants with improvement from severe type to common type (Time Frame: 2 weeks)	Enrolling by invitation; Estimated study completion: April 16, 2020  Update 06.05.2020 Withdrawn	Low

MRx-4DP0004  A Bifidobacterium breve strain isolated from the microbiome of a healthy human infant  Sponsor: 4D pharma plc	NCT04363372	Not stated	A phase 2, randomised, double-blind, placebo controlled study to evaluate the efficacy and safety of MRx-4DP0004.  N = 90 hospitalised patients will be enrolled and randomised (2:1) to receive MRx-4DP0004 or placebo	Change in mean clinical status score in each treatment arm [ Time Frame: Baseline to Day 42 ]	Not yet recruiting  Estimated primary Completion Date: August 2020	Medium
ResCure  Sponsor: ProgenaBiome	NCT04395716	United States, California	Phase 1 open-label interventional study which will test the efficacy of ResCure™ in the treatment of patients with COVID-19 infection.  N = 50 patients age < 18 with severe respiratory symptoms that are at or near requiring the patient be placed on a ventilator to receive nebulized ResCure™ while hospitalized every 4 to 6 hours.	1.The rate of recovery of mild or moderate COVID-19 in patients using ResCure™ [Time Frame: 12 Weeks]  2.Reduction or progression of symptomatic days [Time Frame: 12 Weeks]	Not yet recruiting  Estimated Primary Completion Date: May 2021	Low
Probiotics	ChiCTR2000029974 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49321">http://www.chictr.org.cn/showproj.aspx?proj=49321</a>	Shandong, China	A prospective, multicenter, open-label, randomised, parallel-controlled trial. N=300 patients with mild to severe covid-19 randomised to live Clostridium Butyricum Capsules and Live Bacillus Coagulans Tablets for 14 days	Time to Clinical recovery	Recruiting;  From 2020-02-09 To 2020-08-31	Low
Lactobacillus coryniformis K8 (probiotic)  Sponsor: Biosearch S.A.	NCT04366180	Spain	A randomized, double-blind, placebo-controlled study to evaluate the effects of Lactobacillus coryniformis K8 consumption on the incidence and severity of Covid-19 in health workers exposed to the virus  N = 314 health workers	Incidence of SARS CoV-2 infection in healthcare workers [ Time Frame: 8 weeks ]	Recruiting  Estimated Study Completion Date: October 2020	Medium
Probiotic  Sponsor: Bioithas SL	NCT04390477	Spain	A randomized, open-label trial to evaluate the possible effect of a probiotic mixture in the improvement of symptoms and the increase in the percentage of patients with negative PCR after infection with the coronavirus SARS-CoV-2.  N = 40	Cases with discharge to ICU. [ Time Frame: 30-days ]	Recruiting  Estimated Primary Completion Date: July 2020	Low

Sitagliptin  Sponsor: University of Milan	NCT04365517	Italy	Phase 3, randomized, controlled, open label trial to evaluate the effect of Sitagliptin treatment in COVID-19 positive diabetic patients.  N=170 type 2 diabetes, covid-19 positive randomized to Sitagliptin + nutritional therapy with/without insulin treatment or nutritional therapy with/without insulin treatment.	1. Time for clinical improvement [ Time Frame: 1 month ] 2. Clinical parameter of acute lung disease [ Time Frame: 1 month ] 3. Biochemical parameter of acute lung disease [ Time Frame: 1 month ]	Not yet recruiting  Estimated primary Completion Date: May 30, 2020	Low
Vitamins and minerals  Vitamin C  Sponsor: Université de Sherbrooke	NCT04401150	Canada	Phase 3 randomized, blinded, placebo controlled trial.  Intravenous vitamin C administered in bolus doses of 50 mg/kg mixed in a 50-ml solution of either normal saline (0.9% NaCl) or dextrose 5% in water (D5W) during 30 to 60 minutes, every 6 hours for 96 hours (i.e. 200 mg/kg/day and 16 doses in total).  N=800 adults confirmed COVID-19 admitted to hospital.	Death or persistent organ dysfunction [ Time Frame: Both assessed at 28 days ] Number of deceased participants or with persistent organ dysfunction (dependency on mechanical ventilation, new renal replacement therapy, or vasopressors).	Not yet recruiting  Estimated Primary Completion Date: November 2021	High
Vitamin C Sponsor: ZhiYong Peng	NCT04264533	China, Hubei	Phase 2, blinded N=140 patients with serious or critical covid-19 randomised to vitamin C IV, or placebo	Ventilation-free days	Recruiting;  Sep 30, 2020,	Medium
Ascorbic acid  Sponsor: Thomas Jefferson University	NCT04363216	United States	Phase 2 single-center, prospective, randomized, open-label clinical trial to assess the efficacy, tolerability, and safety of pharmacologic Ascorbic Acid administration in hospitalized patients newly-diagnosed with COVID-19.  N = 66 age > 18 with confirmed SARS-CoV-2 infection to receive Ascor® ascorbic acid 2-hour infusion daily (for 6 days), escalating dose (0.3g/kg, 0.6g/kg, 0.9g/kg).	Clinical Improvement [Time Frame: 72 hours]	Not yet recruiting  Estimated Study Completion Date: April 2021	Medium
Vitamin C, Hydroxychloroquine, Azithromycin, Zinc Citrate, Vitamin D3, Vitamin B12	NCT04395768  (ALLIANCE)	Australia	Phase 2, single-blinded, multicentre, randomized trial on Therapies to Prevent Progression of COVID-19, Including Hydroxychloroquine, Azithromycin, Zinc, Vitamin D, Vitamin B12 With or Without Vitamin C	1. Symptoms [Time Frame: once daily for 15 days since enrollment/baseline at admission to hospital]	Not yet recruiting  Estimated Primary Completion Date: May 31, 2021	Medium

Sponsor: National Institute of Integrative Medicine, Australia			N = 200 with Covid-19 randomised to Hydroxychloroquine, Azithromycin, Zinc, Vitamin D and Vitamin B12 With or Without Vitamin C	2. Length of hospital stay [Time Frame: at 15 and 45 days since admission/ enrolment] 3. Invasive mechanical ventilation or mortality [Time Frame: any time within 15 days from enrolment]		
Vitamin C 0.5 g + diammonium glycerrhizinate enteric coated capsules 150 mg t.i.d.	ChiCTR2000029768 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49131">http://www.chictr.org.cn/showproj.aspx?proj=49131</a>	Hubei, China	A randomised, open, controlled trial N=60 patients with covid-19	Time to Clinical recovery	Recruiting; From 2020-02-12 至 To 2020-05-12	Low
Vitamin C	ChiCTR2000029957 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49633">http://www.chictr.org.cn/showproj.aspx?proj=49633</a>	Shaanxi and Hubei, China	Case series, observational study of 56 patients with severe or critical covid-19	Ventilation-free days; mortality;	Not yet recruiting; From 2020-02-24 To 2021-02-28	Low
Vitamin C	ChiCTR2000030135 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50002">http://www.chictr.org.cn/showproj.aspx?proj=50002</a>	Hubei and Shaanxi, China	Randomised trial, Blinding not stated; Severe or critical covid-19 patients High dose vitamin: N=26 Routine treatment: N=13	Ventilation free days; Mortality	Not yet recruiting; From 2020-02-25 To 2021-02-28	Low
Vitamin C (L-ascorbic acid)  Sponsor: Hunter Holmes McGuire Veteran Affairs Medical Center	NCT04357782	United States, Virginia	Phase 1/2, open-label, non-randomized trial on the use of Intravenous Vitamin C and Decreased Oxygenation  N = 20, age ≥ 18, hospitalized with Covid-19 infection	Incidence of adverse events and reactions [Time Frame: Days 1-4]	Recruiting  Estimated Study Completion Date: August 1, 2020	Low
Vitamin C (L-Ascorbic Acid)  Sponsor: Virginia Commonwealth University	NCT04344184 EVICT-CORONA-ALI	United States, Virginia	Phase 2, randomized, blinded trial on patients with hypoxemia and suspected COVID-19 will reduce the lung injury caused by the SARS-Cov-2.  N=200 randomized to vitamin C (100 mg/kg intravenous infusion every 8 hours for up to 72 hours) or placebo	Number of ventilator-free days [ Time Frame: Up to 28 days ]	Not yet recruiting  Estimated Primary Completion Date: April 2021	Medium
Vitamin C  Sponsor: Rujin Hospital, Shanghai Jiao Tong University School of Medicine	ChiCTR2000032400	China, Shanghai	A prospective, randomized, controlled trial to evaluate the efficacy and safety of high dose intravenous vitamin C in the treatment of novel coronavirus pneumonia (COVID-19). Blinding not stated.  N=120 randomized to High dose intravenous vitamin C or normal saline (control group).	- C-reactive protein [0, 3, 7 days after admission]  - ESR [0, 3, 7 days after admission]  - Existence of SIRS [0, 3, 7 days after admission]	Recruiting  From 2020-01-01 To 2020-06-01	Low
Vitamin C intravenous	NCT04323514	Italy	Single arm, open label. N=500 patients with COVID-19	In-hospital mortality	Recruiting;	Low

					Estimated Primary Completion: March 2021	
Ascorbic Acid (vitamin C), Zinc Gluconate Sponsor: The Cleveland Clinic	NCT04342728 COVIDatoZ	United States, Ohio	Randomized, open-label, prospective, four arm, single-center study.  Single Group Assignment  N=520, age > 18 who present to the Cleveland Clinic outpatient testing and receive a positive test for COVID-19 will be invited to participate.  Randomized 1:1:1:1 to zinc only or zinc+ascorbic acid or ascorbic acid only or standard of care.	Symptom Reduction [ Time Frame: 28 days ]	Enrolling by invitation  Estimated Primary Completion Date: September 30, 2020	Low
Vitamin D  Sponsor: Investigation Institute Bioaraba	2020-001960-28	Spain	Phase 4, randomized, controlled, double-blind study to evaluate the efficacy of vitamin D treatment in patients diagnosed with pneumonia who require hospital admission and have vitamin D deficiency and a positive diagnosis of COVID-19  N=108 older patients with positive diagnosis of COVID-19 and vitamin D deficiency randomized to Vitamin D or placebo.	Mortality and ICU admission [Until the end of the study]	Ongoing  Estimated Primary Completion Date: 2020-08-26	Medium
Vitamin D3  Sponsor: University Hospital, Angers	NCT04344041  2020-001602-34  CoVitTrial	France, multiple sites	Phase 3, open-label, randomized controlled trial.  N=260 high-risk COVID-19 patients randomized to high dose of vitamin D3 or standard dose of vitamin D3.	Number of death of any cause, during the 14 days following the inclusion and intervention. [ Time Frame: Day 14 ]	Recruiting  Estimated Primary Completion Date: July 2020	Medium
Vitamin D	NCT04334005	Granada, Spain	Randomised double-blinded controlled trial N=200 patients with Non-severe symptomatic patients who present cough, fever, nasal congestion, gastrointestinal symptoms, fatigue, anosmia, ageusia or alternative signs of respiratory infections.	Composite of cumulative death for all causes and for specific causes. [ Time Frame: 10 weeks ]	Not yet Recruiting; Estimated Primary Completion: March 2021	Medium
Vitamin D3  Sponsor: University of Alberta	NCT04385940	Not stated	A phase 3 double blind, randomized, controlled clinical trial on the efficacy of vitamin D (daily low dose versus weekly high dose) in COVID-19 patients in	1.Symptoms recovery [ Time Frame: Time from onset of intervention to day 21 ]	Not yet recruiting	Medium

			order to determine the relationship between baseline vitamin D deficiency and clinical characteristics  N = 64		Estimated Primary Completion Date: August 2020	
Vitamin D3  Sponsor: Arizona State University	NCT04407286	United States	Phase 1 open-label single group.  N=100 adults with previous confirmed COVID-19 with low levels of Vitamin D to receive supplementation.	Vitamin D levels [ Time Frame: baseline and after two weeks of vitamin D supplementation ]  Severity of COVID 19 symptoms [ Time Frame: baseline and at 2 weeks after vitamin D supplementation ]	Recruiting  Estimated Primary Completion Date: August 18, 2020	Low
Cholecalciferol  Sponsor: Miguel Cervero Jiménez, servicio de Medicina Interna, Hospital Universitario Severo Ochoa	2020-002312-43	Spain	Phase 3, randomized, open-label study to evaluate the efficacy of administering high-dose cholecalciferol orally alongside standard therapy in patients with COVID-19 pneumonia (COVID-19 HUSO).  N=82	Increased levels of 25-hydroxyvitamin D3 will be determined on days 7, and 14 after initiation of treatment	Ongoing  Estimated primary completion date: Not stated	Low
Cholecalciferol  Sponsor: Vitamin D Study Group	NCT04411446  CARED	Argentina	Phase 4, randomized, controlled, double-blind clinical trial comparing a 500.000 UI dose of vitamin D versus placebo among COVID-19 patients at moderate risk, requiring hospitalization but without requirements of critical care at admission.  N=1265  A sequential design will be used with the first primary outcome being the primary outcome for the first step. This step will include 200 patients. After reach this point, a review of the primary outcome (change in respiratory SOFA) will be done. According to these results, the Executive committee will decide to proceed the second step of the study and include the remaining 1065 patients to evaluate the second primary outcome (need for high dose of oxygen supplementation or mechanical ventilation).	1. Respiratory SOFA. [ Time Frame: One week ]  2. Need of a high dose of oxygen or mechanical ventilation. [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: December 15, 2020	Medium
Oral 25-Hydroxyvitamin D3	NCT04386850	Iran	A phase 2/3 randomized double-blinded placebo-controlled clinical trial to	1.COVID-19 (SARA-Cov-2) infection [ Time Frame: 60 days ]	Recruiting	High

Sponsor: Tehran University of Medical Sciences			investigate the therapeutic efficacy of rapidly correcting vitamin D deficiency in adults with the use of 25-hydroxyvitamin D3 [25(OH)D3] for reducing the risk of acquiring the SARS-CoV-2 (COVID-19) viral infection and mitigating morbidity and mortality associated with this infection. N = 1500 subjects in 3 study groups that include hospital health providers, patients with a positive test for COVID-19 and their relatives with a negative test.	2.Severity of COVID-19 (SARA-Cov-2) infection [ Time Frame: 60 days ] 3.Hospitalization [ Time Frame: 60 days ] 4.Disease duration [ Time Frame: 60 days ] 5.Death [ Time Frame: 60 days ] 6.Oxygen support [ Time Frame: 60 days ]	Estimated Primary Completion Date: November 15, 2020	
Vitamin D  Sponsor: Fundación para la Investigación y la Innovación Biosanitaria del Principado de Asturias (FINBA)	2020-002274-28	Spain	Phase 4, randomized, 2-armed trial to evaluate the likely beneficial effects of vitamin D on infection with coronavirus  N=60 adult subjects with covid-19 treated in the ER og admitted to the hospital randomized to vitamin D (single dose of native vitamin D (100,000 IU of Colecalciferol) or a comparator, which is not stated	- Percentage and time of patients who have a negative SARS-CoV-2 viral load - Clinical symptoms and time during hospitalization - Improvement of biochemical and molecular parameters of inflammation - Overall mean hospital stay - Percentage of patients requiring transfer to the ICU - Average stay in ICU - Mortality during follow-up [Time frame: 14 and 21 days or until a negative SARS-CoV-2 test every 7 days]	Ongoing  Estimated Primary Completion Date: 2020-09-21	Low
Calcifediol  Sponsor: Fundación para la Investigación Biomédica de Córdoba	2020-001717-20  NCT04366908	Spain (multiple sites)	Phase 2, randomized, controlled, open-label trial.  N=1005 subjects ≥ 18 and <90 years, positive covid-19 randomized 1:1 to calcifediol p.o. or best available treatment.	1) Admission to the Intensive Care Unit or 2) Death 1) Ingreso en Unidad de Cuidados intensivos o 2) Fallecimiento [Time frame: Daily throughout the subject duration in the trial.]	Ongoing  Estimated duration of the trial: 5 months Estimated primary completion: July 28, 2020	Low
Zinc and Vitamin D3  Sponsor: University Hospital, Lille	NCT04351490  (ZnD3-CoVici)	France?	A randomized, open-label study to evaluate impact of Zinc and Vitamin D3 supplementation on the survival of institutionalized aged patients infected with COVID-19  N = 3140 randomized to either experimental or control (no intervention).	Survival rate in asymptomatic subjects at inclusion [ Time Frame: Two months after inclusion ]	Not yet recruiting  Estimated Study Completion Date: July 2020	Low
Lipoic acid	<a href="http://www.chictr.org.cn/showproj.aspx?proj=50421">http://www.chictr.org.cn/showproj.aspx?proj=50421</a>	Guangdong and Hubei, China	Parallel single blind study. N=394 randomised to lipoic acid or blank control	Progression rate from mild to critical/severe	Recruiting;	Low

					From 2020-03-02 To 2020-04-30	
Zink i.v.	Australia New Zealand ACTRN12620000454976	Australia Lead center: Department of Surgery University of Melbourne, Austin Health Heidelberg, VIC 3084	RCT i.v. high dose zink vs. placebo  Patients will be allocated in a 1:1 ratio to either the treatment group receiving intravenous zinc chloride (0.5mg/kg/d) or to control group, receiving saline placebo alone	COVID-19 symptomatic confirmed hospitalized adult patients. In non-ventilated patients- Primary outcome: Mean change in the worst (highest) level of oxygenation (oxygen flow in litres/min). This will be assessed by the nursing documentation in the participant's electronic record of the flow rate of oxygen delivered and the delivery method (ie nasal prongs, Hudson mask, or non-breather mask). In ventilated patients- Mean change in the worst (lowest) PaO <sub>2</sub> /FiO <sub>2</sub> ratio (in mmHg). This will be assessed by nursing documented PaO <sub>2</sub> and FiO <sub>2</sub> levels in the patient chart. Worst recorded level of oxygenation during the 7 days of intervention. Mortality 28 days	Not yet recruiting	Medium
Oral nutrition supplement (ONS) enriched in eicosapentaenoic acid, gamma-linolenic acid and antioxidants	NCT04323228	Saudi Arabia	Double-blinded, randomised controlled trial. N=30 randomised to enriched ONS or isocaloric/isonutritigenous ONS	Several primary outcomes: Nutrition risk screening, serum ferritin, IL-6, CRP, TNFa, MCP-1 r	Not yet recruiting; Estimated Primary Completion: October, 2020	Low
Eicosapentaenoic acid	NCT04335032	Not stated	Single group assignment. N=240 treated with Eicosapentaenoic Acid	Time to treatment failure during the 28-day treatment period.	Not yet recruiting; Estimated Primary Completion: July 13, 2020	Low
Icosapent Ethyl (Vascepa <sup>TM</sup> )  Sponsor: Canadian Medical and Surgical Knowledge Translation Research Group	NCT04412018	Canada, Ontario	Phase 2, prospective, multi-site, two-armed, randomized, open-label study to evaluate the Effects of Icosapent Ethyl (Vascepa <sup>TM</sup> ) on Inflammatory Biomarkers in Individuals With COVID-19.  N=100 outpatients in Canada who have received a positive SARS-CoV-2 test result within the preceding 72 hours, randomized 1:1 to icosapent ethyl (4 g BID for 3 days, then 2 g BID for the subsequent 11 days) or usual care.	1. Change in hs-CRP levels from the randomization visit (Day 1) to the Day 14 visit [ Time Frame: 14 days ]	Recruiting  Estimated Primary Completion Date: December 2020	Low
L-citrulline	NCT04404426	France	Prospective, multicenter, placebo-controlled, randomized, double-blind	SOFA [ Time Frame: Day 7 ]	Not yet recruiting	Medium

Sponsor: Rennes University Hospital	CACOLAC		study of Citrulline Administration in the Hospital Patient in Intensive Care for COVID-19 Acute Respiratory Distress Syndrome  N=100 randomized to L-citrulline or placebo.		Estimated Primary Completion Date: June 15, 2021	
Viusid + Asbrip  Sponsor: Catalysis SL	NCT04407182	Ecuador	Phase 2 two-arm, open-label, randomized, placebo-controlled.  N=60 adults with COVID-19 randomized to receive daily doses of 30 ml of Viusid and 10 ml of Asbrip every 8 hours or standard care 2:1.	Symptom resolution [ Time Frame: 21 days ]: The number of days required to achieve a score of 0 for each symptom category (5 categories).	Recruiting  Estimated Primary Completion Date: June 13, 2020	Low
Omega-3 fatty acid supplementation  Sponsor: Vall Hebron University Hospital	EudraCT number: 2020-000705-86	Spain	A phase 4, randomized, double-blinded, controlled study to determinate wether the change to lipidic emulsion (with a 30% omega-3 fatty acids) is effective in reducing liver impairment N = 117 critically ill adult patients with parenteral nutrition and respiratory infection by SARS-COV-2	Primary end point is the change of liver function parameters: GGT ; from the value the day of inclusion to the end of PN.	Ongoing  estimated primary completion date: 26-08-2020	Medium
Isotretinoin (13- Cis-Retinoic Acid)  Sponsor: Kafrelsheikh University	NCT04353180	Egypt, Cairo	Phase 3, open-label, randomized trial on the use of Isotretinoin against Covid-19  N = 45, age > 18, with Covid-19 with severe respiratory failure, randomized 1:1:1 to receive: Oral Isotretinoin + standard therapy, Aerosolized Isotretinoin + standard therapy or standard therapy	Lung injury score [Time Frame: at 7and 14 days]	Recruiting  Estimated Primary Completion: May 2020	Low
Isotretinoin  Sponsor: Tanta University	NCT04361422	Egypt	Phase 3, randomized, open-label trial to evaluate the safety and efficacy of Isotretinoin in treatment of COVID-19.  N=150-300 subjects with clinical and laboratory diagnosis of COVID-19 randomized 1:1:1 to Isotretinoin or standard therapy for COVID-19 or standard therapy for COVID-19 + isotretinoin.  Standard therapy for COVID-19 is defined as Paracetamol 500 mg /6h, Hydroxychloroquine 500 mg/ 12h,	Clinical clearance [ Time Frame: 14-30 day ]	Not yet recruiting  Estimated Primary Completion Date: June 2020	Medium

			Oseltamivir 150 mg /12 h for 5 days, Azithromycin 1 gm first day then 500 mg/day for 1st line or Clarithromycin 500 mg/12 h for 7-14 days, Ascorbic acid 500 mg/12 h and Cyanocobalamin IV once daily plus Lopinavir 400mg/Ritonavir 100 mg caps 2 capsules twice daily in severe cases.			
Isotretinoin, Tamoxifen Sponsor: Kafrelsheikh University	NCT04389580	Egypt	Phase 2, open-label, randomized trial on Combination Therapy With Isotretinoin and Tamoxifen as Protection Against Severe Acute Respiratory Syndrome  N = 160, with Covid-19 randomized to receive Isotrtinoin + tamoxifen (oral/tablet) or aerosolized isotretinoin + tamoxifen or no treatment	Lung injury score [Time Frame: at 7 days]	Not yet recruiting  Estimated Primary Completion: July 2020	Medium

## Genito urinary system and sex hormones

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
<b>Aviptadil</b> Synthetic version of Vasoactive Intestinal Polypeptide Sponsor: NeuroRx, Inc.	NCT04311697	New York, New York, US  Haifa, Israe	PHase 2 double blinded randomised trial. N=120 patients, intubated and on maximal conventional medial therapy are randomised to Intravenous Aviptadil or placebo	Mortality [ Time Frame: 5 Days with followup through 30 days	March 17, 2020 Estimated study completion: August 2020	High
Aviptadil Sponsor: NeuroRx, Inc.	NCT04360096  (AVINALI)	Not stated	Phase2/3, quadruple-blinded, multicenter randomized placebo-controlled trial evaluating inhaled Aviptadil for the treatment of non-acute lung Injury in COVID-19.  N = 144 patients withCOVID-19 induced non-acute lung injury	Progression to ARDS [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: August 1, 2020	Medium
<b>Progesterone</b> Sponsor: Sara Ghandehari	NCT04365127	United States, California	A phase 1, randomized, open-label controlled trial to assess safety and efficacy of progesterone for treatment of COVID-19.  N = 40 hospitalized men randomized in 1:1 ratio to progesterone plus standard of care or standard of care alone	Change in clinical status of subjects at Day 15 based on the following 7-point ordinal scale [ Time Frame: 15 days ]	Recruiting  Estimated Primary Completion Date: Sept 2020	Low

Sildenafil	NCT04304313	Hubei, China	Phase 3, pilot study, single arm study N=10	Rate of disease remission Rate of entering the critical stage Time of entering the critical stage Time frame 14 days	Recruiting; Estimated primary completion: 01.03.2020	Low
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## Other systemic hormonal preparations

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Triiodothyronine (T3)  Sponsor: Uni-Pharma Kleon Tsetis Pharmaceutical Laboratories S.A.	NCT04348513	Greece	Phase 2, parallel, prospective, randomized, double-blind, placebo controlled trial.  N=60 patients diagnosed with pulmonary infection due to COVID-19, admitted in ICU and require mechanical ventilation or ECMO Randomized to T3 solution for injection or placebo.	Assessment of weaning from cardiorespiratory support [ Time Frame: 30 days ]	Not yet recruiting  Estimated Primary Completion Date: May 2, 2021	Medium
Estradiol Patch  Sponsor: Sharon Nachman	NCT04359329	United States, New York	Phase 2, open-label, randomized clinical trial to evaluate if estrogen can reduce the severity of COVID19 symptoms compared to regular care.  N = 110 COVID19+ and presumptive COVID19+ patients	1.Rate of Hospitalization 2.Rate of Transfer to Intensive Care Unit 3.Rate of Intubation 4.Rate of Death	Recruiting  Estimated Study Completion Date: November 15, 2020	Low
Oxytocin  Sponsor: Azienda Ospedaliero-Universitaria di Parma	NCT04386447	France + Italy	A phase 2, open-label, randomized controlled trial with an adaptive design, aiming to assess superiority of Oxytocin administration (40 UI and 25 UI) vs SoC.  N = 145 hospitalized patients affected by COVID-19	Proportion of cases who during 14 exhibit one of the following conditions [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: October 31, 2020	Medium

## Other antiinfectives for systemic use

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Azithromycin	NCT04332107	United States, California	Double blinded placebo controlled randomized trial. N=2271 non-hospitalised patients with mild or moderate COVID-19 randomised to azithromycin or placebo	Hospitalization [ Time Frame: 14 days ]	Not yet recruiting; Estimated Primary Completion: August 30, 2020	High
Azithromycin added to Hydrochloroquine	Eudract: 2020-001456-18 NCT04339816	Czech Republic	Randomised, double-blinded controlled study. 3 treatment arms.	Composite percentage of patients alive and not on end-of-life pathway who are free of mechanical ventilation at day 14.	Ongoing;	High

Sponsor: Nadační fond Donatio intensivistam	AZIQUINE-ICU		N=240 patients with COVID-19 admitted to ICU randomized to azithromycin + hydroxychloroquine, Hydroxychloroquine + placebo, or Placebo		Estimated Primary Completion: December 31, 2021	
Azithromycin with amoxicillin/clavulanate  Sponsor: Nantes University Hospital	NCT04363060	France	A phase 3, randomized, open label controlled trial to evaluate Azithromycin With Amoxicillin/Clavulanate versus Amoxicillin/Clavulanate Alone.  N = 104 COVID-19 patients with pneumonia and hospitalized in a non- intensive care unit ward	Rate of positive SARS-CoV-2 RT-PCR [ Time Frame: Day 6 ]	Not yet recruiting  Estimated Study Completion Date: July 30, 2020	Medium
Azithromycin  Sponsor: University of Oxford	NCT04381962  (ATOMIC2)	UK?	A phase 3, open-label two-arm randomized clinical trial of azithromycin versus usual care in ambulatory COVID- 19  N = 800 outpatients with clinically- diagnosed COVID-19	Proportion progressing to respiratory failure or death (all clinically-diagnosed participants) [ Time Frame: Determined at day 28 from randomisation. ]	Not yet recruiting  Estimated Primary Completion Date: September 13, 2020	Medium
Azithromycin  Sponsor: Prof. Dr. Matthias Preusser, Medical University of Vienna	NCT04369365  OnCoVID-19	Austria	A single-blinded, randomized, placebo- controlled, phase II trial of prophylactic treatment with oral Azithromycin vs. placebo in cancer patients undergoing antineoplastic treatment during the COVID-19 pandemic.  N=200 cancer patients undergoing antineoplastic treatment during the COVID-19 pandemic randomized to Azithromycin (500mg tablet) or placebo.	Cumulative number of severe acute respiratory syndrome corona virus 2 (SARS-COV-2) infections [ Time Frame: 12 weeks after initiation of therapy ]	Recruiting  Estimated primary Completion Date: August 27, 2020	Medium
Azithromycin  Sponsor: Centre Hospitalier Universitaire, Amiens	NCT04371107	France	A phase 3 randomized, open-label trial to demonstrate that azithromycin decreases symptom duration in COVID19 patients and diminishes the viral carriage  N = 64	Length of symptom duration (in days) with azithromycin treatment [ Time Frame: up to 2 months ]	Not yet recruiting  Estimated Study Completion Date: July 2020	Low
Azithromycin + Hydroxychloroquine vs hydroxychloroquine	NCT04336332	United States, New Jersey	Open label randomized controlled trial. N=160 with confirmed COVID-19 randomised to azithromycin + hydroxychloroquine sulfate, or Hydroxychloroquine sulfate, or Standard of care	Changes in patients viral load [ Time Frame: Baseline, day 3 and day 6 ]	Recruiting; Estimated Primary Completion: April 30, 2021	Low

Atovaquone/Azithromycin Sponsor: HonorHealth Research Institute	NCT04339426	Not stated	Open-label, non-randomized single arm study. N=25 assigned to Atovaquone+azithromycin	Virology Cure Rate [ Time Frame: 10 days ]	Recruiting; Estimated Primary Completion; October 2020	Low
Clarithromycin Sponsor: Hellenic Institute for the Study of Sepsis	NCT04398004 (ACHIEVE)	Greece	A phase 2, open-label non-randomized clinical trial of anti-inflammatory Clarithromycin to improve SARS-CoV-2 (COVID-19) infection  N = 90	1.Clinical outcome negative for two parameters(hospital admission/disease progression) [ Time Frame: Day 1 to Day 8 ] 2.At least 50% change of the score of respiratory symptoms from the baseline [ Time Frame: Day 1 to Day 8 ]	Recruiting  Estimated Primary Completion Date: May 6, 2022	Low
Doxycycline Sponsor: Nantes University Hospital	NCT04371952 (DYNAMIC)	France	A phase 3 randomized, double-blind, placebo-controlled study to compare a treatment with doxycycline vs a placebo.  N = 330 patients without hospitalization criteria	1.Clinical worsening SaO2 [ Time Frame: after at least 48 hours of treatment ] 2.Patients hospitalized [ Time Frame: after at least 48 hours of experimental treatment ] 3.Ventilatory assistance [ Time Frame: Day 0 to Day 28 ]	Not yet recruiting  Estimated Study Completion Date: December 1, 2020	Medium
Itraconazole Sponsor: UZLeuven	2020-001243-15	Belgium	Randomised, open label trial. N= 200 hospitalized patients randomized to itraconazole or standard of care	Clinical status of subject at day 15 (on a 7-point ordinal scale)	Ongoing	Medium
Kolimycin Used for the treatment of infections in Japan and Turkey Sponsor: Mudanjiang Kang'an Hospital	ChiCTR2000032242	China, Heilongjiang	A multicenter, randomized, open-label, controlled trial for the efficacy and safety of oral kolimycin in the treatment of patients with new coronavirus pneumonia (CoVID-19)  N=350 randomized 1:1 to basic treatment + kolimycin or basic treatment (control group).	- Virus negative time  - Medication 3, 5, 7, 9, 11, 13, 15 days mouthwash (pharyngeal swab) 2019-nCoV RNA negative rate (%)	Not yet recruiting  From 2020-04-24 To 2021-05-01	Medium

## Nervous system

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Chlorpromazine Sponsor: Cairo University	NCT04354805	Egypt	Phase I/II, randomized, blinded trial to evaluate the effect of administration of the Chlorpromazine on COVID-19 patients.  N=60 COVID-19 adult patients randomized 1:1 to Chlorpromazine (25 mg every 6 hours for 1 week) in addition to the conventional treatment	Lactate dehydrogenase (LDH) [ Time Frame: 2 weeks ] LDH is an enzyme indicate some form of tissue damage, Normal LDH levels range from 140 units per litre (U/L) to 280 U/L.	Not yet recruiting  Estimated Primary Completion Date: August 2020	Low

			of COVID-19 or conventional treatment of COVID-19 only			
Chlorpromazine Sponsor: Centre Hospitalier St Anne	NCT04366739 (reCoVery)	France	A phase 3, randomized, single-blind, pilot clinical study to explore the efficacy and safety of chlorpromazine (CPZ) in the treatment of COVID-19 compared to standard of care.  N = 40 adult subjects with COVID-19-moderate type (WHO-OSCI 3-5).	Time To Response (TTR) [ Time Frame: 28 days ] The primary endpoint is the time to response (TTR) in days, from randomization to 28th day. By response to treatment is meant the reduction of at least one severity level on the World Health Organization Ordinal Scale for Clinical Improvement (WHO-OSCI)	Not yet recruiting  Estimated Study Completion Date: August 30, 2020	Low
1,3,7-Trimethylxanthine (caffeine) Sponsor: Poitiers University Hospital	NCT04395742	France	Observational, controlled, retrospective study on 1,3,7-Trimethylxanthine as a Treatment of COVID-19  N = 93, hospitalized with Covid-19 receiving either coffee with 1,3,7-trimethylxanthine or tea and hot chocolate with milk	Comparison of vital status [Time Frame: 6 days]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Low
Dexmedetomidine Sponsor: Hospital Clinic of Barcelona	NCT04358627	Not stated	Observational, case-control study to evaluate the impact of dexmedetomidine infusion on improving the outcomes of ARDS compared to control (no DEX).  N = 80 patients admitted to critical care because of signs of respiratory insufficiency requiring non-invasive ventilation	Mechanical ventilation [ Time Frame: expected within first three days (non conclusive due to lack of evidence yet) ]	Not yet recruiting  Estimated primary Completion Date: May 30, 2020	Low
Fluvoxamine Sponsor: Washington University School of Medicine	NCT04342663 (STOP COVID)	United States, Illinois, Missouri	Phase 2, double-blinded, placebo-controlled clinical trial of Fluvoxamine for Symptomatic Individuals with COVID-19  N=152, infected with COVID-19 with current mild symptoms  Randomized 1:1 for 300mg daily oral Fluvoxamine for 15 days or placebo	Time to clinical worsening [ Time Frame: RCT (approximately 15 days) ]	Recruiting  Estimated primary Completion Date: June 1, 2020	Medium
Melatonin Sponsor: Fundación para la Investigación Biomédica del Hospital La Paz (FIBHULP)	EudraCT: 2020-001530-35	Spain	Phase 4, double-blinded, placebo-controlled, randomized clinical trial on the efficacy of Melatonin as COVID-19 prophylaxis in high-risk contacts  N=450, health care personnel in risk of COVID-19 transmission	Primary: Number of symptomatic infections confirmed by COVID-19  Secondary: Number of asymptomatic infections confirmed by COVID-19 measured by serology	Ongoing Trial registration: 13-04-2020  Estimate of duration: 8 months	High

				[Time frame: 16 weeks]	Estimated Primary Completion: April 2021	
Metenkefalin + Tridecactide  Sponsor: Bosnalijek D.D	NCT04374032	Bosnia and Herzegovina	Phase 2/3, open-label, randomized trial on the Efficacy and Safety of an Immunomodulatory Therapy (Enkorten) for the Treatment of Patients With Moderate to Severe COVID-19 Infection  N = 120, hospitalised with moderate to severe COVID-19 infection and pneumonia randomized to metenkefalin + tridecactide or standard of care	Time to onset of change in the patient's clinical condition  Safety and tolerability evaluation - treatment-related adverse events will be assessed by CTCAE  [Time Frame: 21 days]	Recruiting  Estimated Study Completion Date: October 31, 2020	Medium
Naltrexone and Ketamine  Sponsor: William Beaumont Hospitals	NCT04365985  SINK COVID-19	United States, Michigan	Phase 2, prospective, single center, randomized, double blinded study of naltrexone with an open label extension using ketamine as a rescue drug for patients who progress in their disease.  N=500 subjects age ≥18, positive for COVID-19 randomized to Naltrexone or placebo. The use of ketamine will be unblinded and given as a rescue agent for patients who progress in their disease	Progression of oxygenation needs [ Time Frame: up to 1 month ]	Not yet recruiting  Estimated Primary completion: May 2020	Medium
Pyridostigmin	NCT04343963	Mexico	Randomised doubled blinded trial 436 participants hospitalized with covid-19 randomised to pyridostigmine or placebo.	Critical condition or death [ Time Frame: 28 days ]	Recruiting; Estimated Primary Completion: September 30, 2020	Medium
Sevoflurane  Sponsor: University of Zurich	NCT04355962  (SevCov)	Switzerland	Randomised, double-blinded controlled trial. N=64 patients with COVID-19 randomised to sevoflurane or other sedatives e.g. propofol, fentanyl, midazolam or dexmedetomidine	Composite outcome of death rate (rate of patients that did not survive) and organ failure rate (rate of patients surviving with persistent organ dysfunction) at day 28 [ Time Frame: 28 days ]	Recruiting; Estimated Primary Completion: March 31, 2021	Medium
Vafidemstat, CNS optimized LSD1 inhibitor  Sponsor: Oryzon Genomics, S.A.	EudraCT: 2020-001618-39, "ESCAPE"	Barcelona, Spain	Open-label, randomized, multicenter (3), double-arm Phase II trial.  N=40 randomized to vafidemstat or standard of care (e.g., chloroquine, lopinavir/ritonavir, azithromycin, or any other being applied by the Hospitals according to the current guides).	Number of patients requiring mechanical ventilation and referral to ICU from day 1 to day 14  Global mortality from day 1 to day 14	Recruiting  Estimated duration of the trial: 28 days	Medium

## Antiparasitic products, insecticides and repellents

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Artesunate  Sponsor: Princess Nourah Bint Abdulrahman University	NCT04387240	Saudi Arabia	Phase 2, randomized, double blind controlled trial evaluating the efficacy of Artesunate in adults with mild symptoms of COVID-19.  N=22 age 18-60, positive swab covid-19 patients with mild to moderate symptoms. Randomized to Artemisinin / Artesunate (100 mg once daily for 5 days) or placebo.	Length of stay in hospital [ Time Frame: within the first 6 days intervention ] Absence of the virus shedding evidenced by negative swabs	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium
Dihydroartemisinin piperazine (Eurartesim) Indicated for the treatment of uncomplicated Plasmodium falciparum malaria	ChiCTR2000030082  <a href="http://www.chictr.org.cn/showproj.aspx?proj=49915">http://www.chictr.org.cn/showproj.aspx?proj=49915</a>		Randomised open label, controlled trial Mild to common covid 19 randomised to dihydroartemisinin piperazine tablets combined with antiviral treatment, or alpha interferon and Arbidol	The time when the nucleic acid of the novel coronavirus turns negative	Recruiting;  From 2020-02-23 To 2020-04-30 Update 11-05-2020: Cancelled by the investigator	Low
Artemisinin-piperazine  Sponsor: Hongqi Hospital Affiliated to Mudangjiang Medical University	ChiCTR2000032915	China, Heilongjiang	Phase 4, randomized controlled trial for the efficacy and safety of artemisinin-piperazine tablets in the treatment of the mild and common type novel coronavirus pneumonia (COVID-19) patients whose nCoV Nucleic acid did not turn negative after treated by hydroxychloroquine and Abidor.  Blinding not stated.  N=240 subjects aged 2 to 65 years old randomized 1:1 to artemisinin-piperazine or symptomatic treatment with non-antiviral drugs (control group)	Tolerance Viral load of nCoV (furthermore a long list of primary outcomes are stated)	Recruiting  From 2020-05-07 To 2020-12-31	Medium
Artemisinin-piperazine tablets  Sponsor: Hongqi Hospital Affiliated to Mudangjiang Medical University	ChiCTR2000033049	China	Phase 4, single arm, clinical study for the efficacy and safety of artemisinin-piperazine tablets in the treatment of the untreated mild or common type novel coronavirus pneumonia (COVID-19) patients.  N = 160 subjects age 18-65 diagnosed with COVID-19 of light and common	Viral load of nCoV, Blood test, Immunological examination, Blood liver and kidney function test, Myocardial enzyme biochemical examination, ECG examination, Routine urine test, pulse, breathe, blood pressure, CT examination of the lungs.	Not yet recruiting  From 2020-05-19 To 2020-12-31	Low

			type to receive artemisinin-pipecquine tablets.			
Ivermectine + Hydroxychloroquine Sulfate  Ivermectin can inhibit replication of SARS-CoV-2 in vitro Sponsor: University of Baghdad	NCT04343092	Not stated	Phase 1, double-blinded, randomized, placebo-controlled pilot-study.  N=50 covid-19 patients with pneumonia, age > 18.  Randomized to Ivermectin (12mg/weekly) + Hydroxychloroquin (400mg/daily) or placebo + Hydroxychloroquin (400mg/daily)	Number of cured patients [ Time Frame: 2 weeks ]	Recruiting  Estimated Primary Completion Date: August 1, 2020	Medium
Ivermectin and Nitazoxanide  Sponsor: Tanta University	NCT04360356	Egypt	Phase 2/3, randomized, double-blinded trial evaluating safety and efficacy of Ivermectin and Nitazoxanide combination as adjuvant therapy in COVID-19 newly diagnosed Egyptian patients. N=100 adult symptomatic covid-19 patients randomized to Ivermectin+Nitazoxanide or standard care.	Number of Patients with COVID-19-negative PCR [ Time Frame: within 10 days ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	Medium
Ivermectin  Sponsor: Clínica Universidad de Navarra/Universidad de Navarra	2020-001474-29	Spain	Phase 2, randomized, placebo-controlled, double-blind pilot study to determine the efficacy of a single dose of ivermectin, administered to low risk, non-severe COVID-19 patients in the first 48 hours after symptoms onset to reduce the proportion of patients with detectable SARS-CoV-2 RNA by PCR from nasopharyngeal swab at day seven post-treatment.  N=24 patients diagnosed with COVID-19 in the emergency room of the Clínica Universidad de Navarra with a positive SARS-CoV-2 PCR randomized to ivermectin (single dose) or placebo.	Proportion of patients with a positive SARS-CoV-2 PCR from a nasopharyngeal swab [Time frame: day 7 post treatment]	Ongoing  Estimated primary completion: 2020-06-15	Medium
Ivermectin  Sponsor: Fundació Assistencial Mútua Terrassa	2020-001994-66  ECIT-PRO19	Spain	Phase 3, placebo-controlled, randomized, double-blind trial to demonstrate the effectiveness of Ivermectin in the prophylaxis and treatment of COVID-19.	Sub-study 1: Virological clearance at 3, 6, 9 and 12 days after starting treatment with Ivermectin  Sub-study 2:	Ongoing  Estimated primary completion: Not stated	Medium

			<p>N=266 randomized to Ivermectin or placebo.</p> <p>Sub-study 1 (to demonstrate the Efficacy of Ivermectin in the treatment of SARS-CoV-2): Symptomatic (respiratory) patients with a positive PCR-RT test for COVID-19 and a clinical condition of less than 5 days of evolution.</p> <p>Sub-study 2 (to demonstrate Ivermectin efficacy in contact prophylaxis): Contacts of symptomatic (respiratory) patients with a positive PCR-RT test for COVID-19 and a diagnosis of less than 5 days of evolution.</p>	Incidence of secondary cases diagnosed by molecular biology and serology on the 7th, 14th, 21st day after starting prophylaxis with Ivermectin and with placebo		
Ivermectin Sponsor: Laboratorio Elea Phoenix S.A.	NCT04381884	Argentina	<p>Phase 2 randomized, open label, proof of concept trial to Prove Ivermectin Efficacy in the Reduction of SARS-CoV-2 Replication at Early Stages of COVID-19.</p> <p>N = 45 patients randomized to receive Ivermectin 600 µg / kg / once daily plus standard care or standard care.</p>	Reduction in SARS-CoV-2 viral load [Time Frame: 1 - 5 days]	Not yet recruiting Estimated Primary Completion Date: June 30, 2020	Medium
Ivermectin Sponsor: Centro de Estudios en Infectología Pediátrica	NCT04405843	Not stated	<p>Phase 2/3 Randomized, Placebo Controlled, Double Blind Clinical Trial to Evaluate the Efficacy of Molecule D11AX22 in Adults Patients From Cali, Colombia With Early Stages of SARS COV2 / COVID-19.</p> <p>N=400 adults with confirmed COVID-19 randomized to Ivermectin, 300 micrograms / kg, once daily for 5 days or placebo</p>	Time to event [ Time Frame: 21 days ]: Time until deterioration of 2 or more points in an ordinal 7 points scale.	Not yet recruiting Estimated Primary Completion Date: October 2020	Medium
Ivermectin + Doxycycline Sponsor: International Centre for Diarrhoeal Disease Research, Bangladesh	NCT04407130	Not stated	<p>Phase 2 Randomised, Double-blind, Placebo-controlled Trial.</p> <p>N=72 adults Bangladeshi aged 40-65 years with positive COVID-19 test. Efficacy and Safety of Ivermectin and Doxycycline in Combination or IVE</p>	<p>Virological clearance [ Time Frame: within 7 days after enrollment ]</p> <p>Remission of fever [ Time Frame: within 7 days after enrollment ]</p> <p>Remission of cough [ Time Frame: within 7 days after enrollment ]</p>	Not yet recruiting Estimated Primary Completion Date: July 2020	Medium

			Alone in Patients With COVID-19 Infection.			
Ivermectin Sponsor: Investigacion Biomedica para el Desarrollo de Farmacos S.A. de C.V.	NCT04407507  SILVERBULLET	Not stated	Phase 2, Multicenter, Double-blind, Randomized, Placebo-controlled Study to evaluate the efficacy, safety and tolerability of Ivermectin in patients with mild SARS-CoV-2 infection  N=66 patients with diagnosis of acute severe respiratory syndrome due to covid-19, asymptomatic or mild symptoms, randomized to Ivermectin or placebo.	Participants with a disease control status defined as no disease progression to severe. [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: August 2020	Medium
Ivermectin, Doxycycline, Chloroquine Sponsor: Tanta University	NCT04403555	Egypt	Phase 2/3, randomized, open-label study to assess the efficacy of Ivermectin and Doxycycline in COVID-19 Treatment  N=40 COVID-19 patients randomized to Ivermectin and doxycycline or chloroquine	The number of patients with resolved viral infection [ Time Frame: 6 months ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2030	Low
Ivermectin Sponsor: Combined Military Hospital, Pakistan	NCT04392713	Pakistan	Open-label, controlled, randomized trial on the Efficacy of Ivermectin in COVID-19  N = 100, age 15-65 with confirmed mild to moderate Covid-19 infection, randomized to Ivermectin 6 MG oral tablet with standard chloroquine regimen or chloroquine only	Negative PCR [Time Frame: 144 hours]	Recruiting  Estimated Primary Completion: July 2020	Low
Bicalutamide, Ivermectin Sponsor: Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins	NCT04374279	United States, Maryland	Phase 2, open-label, controlled, randomized study on the use of Ivermectin or endocrine therapy in Covid-19 infection  N = 60, hospitalized with Covid-19 with minimal or no respiratory symptoms randomized 1:1:1 to Bicalutamide + standard of care Only Ivermectin Only standard of care	Number of participants who have clinical improvement at day 7 after randomization [Time Frame: up to 7 days]	Not yet recruiting  Estimated Study Completion: June 2021	Low
Ivermectin Sponsor: Tanta University	NCT04351347	Egypt	Open label, randomized controlled trial. N=60 patients with COVID-19 randomised to Chloroquine,	Number of patients with virological cure [ Time Frame: 6 months ]	Not yet recruiting; Estimated Primary Completion: December 1, 2030?	Low

			Chloroquine + nitazoxanide, or Chloroquine + ivermectin			
Ivermectin  Sponsor: Clinica Universidad de Navarra, Universidad de Navarra	NCT04390022  SAINT	Spain	Phase 2, double-blind, randomized controlled trial with two parallel groups that evaluates the efficacy of ivermectin in reducing nasal viral carriage at seven days after treatment in SARS-CoV-2 infected patients who are at low risk of progression to severe disease.  N=24 adult patients diagnosed with COVID-19 in the emergency room of the Clinica Universidad de Navarra with a positive SARS-CoV-2 PCR randomized to Ivermectin or placebo.	Proportion of patients with a positive SARS-CoV-2 PCR from a nasopharyngeal swab [ Time Frame: 7 days post-treatment ]	Not yet recruiting  Estimated Primary Completion Date: August 4, 2020	Low
Ivermectin, Azithromycin, Cholecalciferol  Sponsor: Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado	NCT04399746  IvAzCol	Mexico	Non-randomized, open-label pilot study for COVID-19 outpatient treatment with the combination of Ivermectin-azithromycin-cholecalciferol.  N=30 with confirmed infection of SARS-CoV2 virus, mild covid-19, symptoms of respiratory illness, cough and fever.  Intervention group: Ivermectin (6mg once daily in day 0,1,7 and 8) plus Azithromycin (500mg once daily for 4 days) plus Cholecalciferol (400 IU twice daily for 30 days).  Control group.	Viral clearance [ Time Frame: 14 days ]	Recruiting  Actual Primary Completion Date: May 20, 2020	Low
Ivermectin  Sponsor: Max Healthcare Insitute Limited	NCT04373824		Non-randomized, open-label trial to study the effectiveness of Ivermectin with standard of care vs. standard of care for COVID 19 cases.  N=50 adult COVID-19 patients. Group I (n=25): Ivermectin 200 to 400 mcg per kg body weight on day 1 and day 2 along with standard treatment of the hospital protocol. Group II (n=25): standard treatment as per hospital protocol for COVID 19.	Effect of Ivermectin on eradication of virus. [ Time Frame: 3 months ] Test for virus at 1, 3 & 5 days from beginning of trial drug started for the patient in the hospital	Recruiting  Estimated Study Completion Date: July 25, 2020	Low
Levamisole and Isoprinosine	NCT04360122	Egypt	Phase 3, randomized, open labelled, clinical trial to evaluate to tmpact of Levamisole and Isoprinosine in	Decrease the incidence of COVID-19 infection or its severity [ Time Frame: 6 months ]	Not yet recruiting	Medium

Sponsor: Ain Shams University			Immune-prophylaxis of Egyptian healthcare workers facing COVID-19.  N=100 health care workers randomized to Levamisole or Isoprinosine or Levamisole+Isoprinosine or no intervention.		Estimated Primary Completion Date: October 1, 2020	
Levamisole + Isoprinosine (and Azithromycin + Hydroxychloroquine)  Sponsor: Cairo University	NCT04383717	Egypt	Phase 3, Double-blinded, controlled, randomized trial on the use of Levamisole and Isoprinosine in the Treatment of COVID19  N = 60, age 6-90 with confirmed or clinical Covid-19 infection randomized to Levamisole + Isoprinosine or Azithromycin + Hydroxychloroquine	1. COVID 19 induced fever in both groups 2. COVID 19 induced dyspnea in both groups 3. COVID 19 viral load in both groups  [Time Frame: 4 weeks]	Not yet recruiting  Estimated Primary Completion Date, August 30, 2020	Low
Mefloquine  Sponsor: Burnasyan Federal Medical Biophysical Center	NCT04347031	Russia, Moscow	Phase 2, open-label, randomized trial on the efficacy of Mefloquine in comparison with Hydroxychloroquine for patients with Covid-19 infection.  N=320, age > 18, hospitalized with Covid-19 infection  Arm 1: Mefloquine Arm 2: Hydroxychloroquine Arm 3: Mefloquine + azithromycin + / - tocilizumab Arm 4: Hydroxychloroquine + azithromycin + / - tocilizumab	The period of clinical recovery. [Time Frame: through study completion, an average of 3 months]  For arm 1 and 2: The number of patients with development of respiratory failure requiring transfer to the ICU [Time Frame: up to 3 months]  For arm 3 and 4: Frequency of fatal outcomes associated with coronavirus infection disease (COVID19) [Time Frame: through study completion, an average of 3 months]	Enrolling by invitation  Estimated Primary Completion Date: August 1, 2020	Medium
Niclosamide  Sponsor: Tufts Medical Center	NCT04399356  STUDY00000605	Not stated	Phase 2, randomized, double-blinded, placebo-controlled trial to evaluate the antihelmintic drug, Niclosamide, as a potential treatment for mild to moderate coronavirus disease 2019 (COVID-19).  N=100 subjects with mild to moderate disease from covid-19 and no requirement for hospitalization at the time of enrollment. Randomized to Niclosamide or placebo.	Change in respiratory viral clearance (by PCR), Oropharangeal swab [ Time Frame: Day 3 and 10 ]	Not yet recruiting  Estimated Primary Completion Date: October 1, 2020	High
Nitazoxanide	NCT04359680	Not stated	Phase 3, randomized, double-blind, multi-center, placebo controlled trial to	1. The proportion of subjects with symptomatic laboratory-confirmed	Not yet recruiting	High

Sponsor: Romark Laboratories L.C.			evaluate the efficacy and safety of Nitazoxanide (NTZ) for pre- or post exposure prophylaxis of COVID-19 and other viral respiratory illnesses (VRI) in healthcare workers.  N=800 healthcare workers at increased risk for direct occupational exposure to COVID-19 randomized to Nitazoxanide or placebo.	COVID-19 identified after start of treatment and before the end of the 6-week treatment period. [ Time Frame: Up to 6 weeks ]  2. The proportion of subjects with symptomatic laboratory-confirmed VRI identified after the start of treatment and before the end of the 6-week treatment period. [ Time Frame: Up to 6 weeks ]	Estimated Primary Completion Date: August 31, 2020	
Nitazoxanide  Sponsor: Azidus Brasil	NCT04348409	Brazil	Proof of Concept, Multicentre, Parallel, Randomized, Double-blind Clinical Trial to Assess the Safety and Efficacy of Nitazoxanide compared to placebo.  N = 50 patients age > 18 PCR confirmed COVID-19 will receive nitazoxanide 600 mg BID for 7 days or placebo.	Viral load [Time Frame: day 1, 4, 7, 14 and 21]	Recruiting  Estimated primary Completion Date: May 31, 2020	Medium
Nitazoxanide (NTZ)  A synthetic antiprotozoal agent  Sponsor: Romark Laboratories L.C.	NCT04343248	Not stated	Phase 3, multicenter, randomized, double-blind, placebo-controlled trial to evaluate the efficacy and safety of NTZ for post-exposure prophylaxis of COVID-19.  N=600 residents of LTCFs at least 65 years of age randomized to nitazoxanide or placebo.	1. Symptomatic laboratory-confirmed COVID-19 [ Time Frame: up to 6 weeks ]  2. Symptomatic laboratory-confirmed viral respiratory infection [ Time Frame: up to 6 weeks ]	Not yet recruiting  Estimated Primary Completion Date: August 31, 2020	Medium
Nitazoxanide, Ribavirin and Ivermectin  Sponsor: Mansoura University	NCT04392427	Egypt	Phase 3, randomized, sequential clinical trial to compare the rate and time of viral clearance in subjects receiving the combination of Nitazoxanide, Ribavirin and Ivermectin vs. those control group (without any intervention).  N = 100 subjects with PCR positive COVID-19 to receive a combination of Nitazoxanide, Ribavirin and Ivermectin for a duration of seven days.	Negative test result for COVID-19 [ Time Frame: 2 YEARS ]	Not yet recruiting  Estimated Primary Completion Date: May 2022	Medium
Nitazoxanide  Sponsor: Materno-Perinatal Hospital of the State of Mexico	NCT04406246	Mexico	Phase 4, cohort study to evaluate the prevention of COVID-19 outbreaks by prophylactic treatment with Nitazoxanide.	Health workers that require hospitalization [ Time Frame: Two weeks since the beginning of symptoms	Recruiting  Estimated Primary Completion Date: December 31, 2020	Low

			N=150 health workers with symptoms of SARS-CoV-2 not requiring hospitalization will receive an early treatment with nitazoxanide (500 mg every 6 hour for two days and then every 12 hours for four days).			
Nitazoxanide, Ivermectin, Chloroquine and Azithromycin  Sponsor: Tanta University	NCT04382846	Not stated	Phase 3, randomized, open-label trial.  N=80 patients with COVID-19 infection randomized to Nitazoxanide + Azithromycin OR Ivermectin + chloroquine OR Ivermectin + Nitazoxanide OR Nitazoxanide + Ivermectin + Azithromycin	Number of patients with virological cure [ Time Frame: 6 months ]	Not yet recruiting  Estimated Primary Completion Date: December 1, 2030	Low
Suramin sodium Used for treatment of trypanosomiasis	ChiCTR2000030029 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49824">http://www.chictr.org.cn/showproj.aspx?proj=49824</a>	Zhejiang, China	Single arm study of 20 patients with covid-19.	Clinical cure rate, incidence of mechanical ventilation by day28; All-cause mortality by day28; Incidence of ICU admission by day28	From2020-01-31 To 2020-05-30	Low

## Respiratory system

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
Almitrine  Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04357457  (AIRVM-COVID)	France	Phase 3, randomized controlled, placebo-controlled, double-blind study to evaluate to efficacy of intravenous Almitrine in reducing the need for mechanical ventilation.  N = 212 patients with hypoxemic acute respiratory failure due to covid-19-related pneumonia	Rate of endotracheal intubation [ Time Frame: 7 days ]	Not yet recruiting  Estimated Study Completion Date: July 2020	High
Almitrine bismesylate  Sponsor: Central Hospital, Nancy, France	NCT04380727	France	An observational, prospective, case-control study to evaluate almitrine compared to control group.  N = 17 severe COVID-19 patients in ICU	1.Changes from baseline PaO2 (mmHg) [ Time Frame: 45 minutes after almitrine infusion ] 2.Changes from baseline ScvO2 (%) [ Time Frame: baseline and 45 minutes after almitrine infusion ]	Completed  Actual Study Completion Date: April 25, 2020	Low
Acetylcystein Inhaled	ChiCTR2000030328 <a href="http://www.chictr.org.cn/showproj.aspx?proj=50241">http://www.chictr.org.cn/showproj.aspx?proj=50241</a>	Hubei, China	Clinical trial, blinding not stated. N=60 with moderate covid-19 treated with either Acetylcysteine inhaled via tracheal tube or saline inhaled via tracheal tube	Wide range of primary outcomes	Not yet recruiting End-date not specified	Low
N-acetylcysteine	NCT04374461	United States, New York	Phase 2, open-label, non-randomized study of N-acetylcysteine in Severe or	1. Number of patient's that transfer out of critical care unit or	Recruiting	Low

Sponsor: Memorial Sloan Kettering Cancer Center			Critically Ill Patients With Refractory COVID-19 Infection  N = 86 Arm A: Admission to an intensive care unit at MSK (M-11 or M-18) and/or receiving mechanical ventilation, Absolute lymphocyte count $\leq 1.0/mm^3$ Arm B: Requiring L by nasal cannula or higher to maintain SpO2 of 95%  Patients in both arms will receive N-acetylcysteine IV 6 g/day in addition to supportive and/or COVID-19 directed treatments at the discretion of the treating physician	extubation (Arm 1) [Time Frame: 1 year]  2. Number of patient's that are discharged from hospital [Time Frame: 1 year]	Estimated Study Completion: May 2021	
<b>Bromhexine</b> + Hydroxychloroquine  Sponsor: General and Teaching Hospital Celje	NCT04355026  SBCebromhexinCovid-19	Slovenia	Phase 4, randomized, open-label trial to explore the therapeutic potential of bromhexin and hydroxychloroquine in Covid-19 patients.  N=90 adult covid-19 patients randomized to hydroxychloroquine and bromhexine or hydroxychloroquine alone.	1. Duration of hospitalization [ Time Frame: through study completion, an average of 6 months ]  2. Duration of disease [ Time Frame: through study completion, an average of 6 months ]	Recruiting  Estimated Primary Completion Date: June 30, 2020	Medium
Bromhexine	NCT04273763	China, Zhejiang	Open label N=60 with mild corona pneumonia randomised 1:1 to Bromhexine + interferon-alfa + arbidol, or arbidol hydroglhoride + interferon alfa2b	Time to clinical recovery after treatment	Enrolling by Invitation  Estimated primary completion: May 10, 2020	Low
Bromhexine Hydrochloride (Profylaxis)  Sponsor: Federal State Budgetary Institution, V. A. Almazov Federal North-West Medical Research Centre, of the Ministry of Health	NCT04405999	Russian Federation	Phase 4 Randomized, Open-Label trial for Prevention of Infection and Incidence of COVID-19 in Medical Personnel Assisting Patients With New Coronavirus Disease  N=140 adults with negative COVID-19 PCR-test.	Negative PCR of SARS-CoV-2 and the absence of clinical manifestations of COVID-19 infection in individuals taking Bromhexine hydrochloride 4 weeks after randomization.	Recruiting  Estimated Primary Completion Date: June 20, 2020	Low
<b>Dornase Alfa</b>  Sponsor: University College, London	NCT04359654	United Kingdom	Phase 2, single-site, open-label, randomised trial to investigate approved nebulised recombinant human DNase enzyme (Dornase Alfa) to reduce hyperinflammation in	Reduction in inflammation [ Time Frame: 7 days ]	Not yet recruiting  Estimated Primary Completion Date: August 1, 2020	Low

			<p>hospitalised participants with COVID-19.</p> <p>N=50 subjects admitted to the hospital with covid-19 and are at risk of ventilatory failure randomized to Dornase Alfa Inhalation Solution (2.5mg bd for 7 days) or standard of care.</p>			
<p><b>Ebastine</b> H1 antagonist</p>	<p>ChiCTR2000030535 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49790">http://www.chictr.org.cn/showproj.aspx?proj=49790</a></p>	Hubei, China	<p>Single blind, multicenter, randomized, parallel controlled trial N= 100 patients with mild to severe covid-19 randomised to Ebastine + interferon-alpha aerosol inhalation + lopinavir, or interferon-alpha aerosol inhalation + lopinavir</p>	<p>Several primary outcomes: Fever, respiratory rate, blood oxygen saturation turned to normal and cough relieved for at least 72 hours.</p>	<p>Recruiting; From 2020-02-20 to 2020-03-30</p>	Medium
<p><b>Hydrogen-oxygen</b> nebulizer</p>	<p>ChiCTR2000029739 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49283">http://www.chictr.org.cn/showproj.aspx?proj=49283</a></p>	Guangdong and Shanghai	<p>Multicenter, Randomised, Parallel Controlled Clinical Study N=440 patients with moderate covid-19 randomised to Hydrogen-oxygen nebulizer or conventional treatment</p>	<p>Worsening or improving of condition</p>	<p>Recruiting; From 2020-02-01 To 2021-08-31</p>	Low
<p><b>Isoflurane and Sevoflurane</b> inhalant product</p> <p>Sponsor: Sunnybrook Health Sciences Centre</p>	NCT04415060	Canada	<p>Phase 3 open-label, pragmatic, randomized controlled trial and a parallel prospective (non-randomized) cohort study.</p> <p>N=752 adults with or possible COVID-19 and Mechanically ventilated <math>\leq</math> 48 hours. Randomized ratios of 2:1 or 1:2 to either an intravenous based sedation arm or an inhaled volatile-based sedation arm.</p>	<p>Hospital Mortality [ Time Frame: 2 years ]</p> <p>Ventilator-Free Days [ Time Frame: 30 days ]</p> <p>ICU-Free Days [ Time Frame: 30 days ]</p> <p>Participant Quality of Life at 3 and 12 months after discharge [ Time Frame: 365 days ]</p>	<p>Not yet recruiting Estimated Primary Completion Date: June 15, 2022</p>	Medium

Lucinactant Sponsor: Windtree Therapeutics	NCT04389671 02-CL-2001a	Not stated	Phase 1/2, multicenter, single-treatment, open-label study to assess the safety and preliminary efficacy of lyophilized Lucinactant.  N=30 adults with COVID-19 associated acute lung injury	Oxygenation index (OI) area under the curve (AUC)0-12 [ Time Frame: 12 hours post initiation of dosing ] The AUC for OI through 12 hours measured using the trapezoidal method, where OI is defined as mean airway pressure (Paw)×fraction of inspired oxygen (FiO2)×100/arterial pressure of oxygen (PaO2)	Not yet recruiting  Estimated Primary Completion Date: October 2020	Low
Montelukast Sponsor: McGill University	NCT04389411	Canada	Phase 2/3, double-blinded, placebo-controlled, randomized trial on the use of Montelukast for the Attenuation and Prophylaxis of Severe COVID-19 Symptoms  N = 600, age >40, with Covid-19 infection	Emergency Room Visits and Hospitalizations [Time Frame: 12 weeks]	Not yet recruiting  Estimated Primary Completion: February 2021	High
Nitrogen oxide Sponsor: Xijing Hospital	NCT04290858	Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico	Double blinded randomised trial N=400 with covid19 with fever, resp. rate>24 or sat>93% randomised to NO	Sp=2<93%, , intubation, ECMO	Not yet recruiting; Estimated study completion: March 1 2021	Medium
Nitrogen oxide Sponsor: Xijing Hospital	NCT04290871	Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico	Phase 2 study; Double blinded, sham controlled randomised trial  N=104 with covid19 with PaO2/FiO2 < 300 or SpO2 below 93% breathing ambient air randomised to NO or sham NO	SARS-free patients at 14 days [ Time Frame: 14 days since beginning of treatment ] Percentage of patients that have a PaO2/FiO2 ratio steadily > 300 in ambient air	Not yet recruiting; Estimated study completion: March 1 2021	Medium
Nitric oxide Sponsor: Massachusetts General Hospital	NCT04338828	United States, Massachusetts	Double blinded randomized controlled trial of N=260 patients with mild COVID-19. Randomised to Nitric oxide inhalation or Oxygen inhalation	Rates of return visits to the ED [ Time Frame: 28 days ]	Not yet recruiting; Estimated Primary Completion; April 2021	Medium
Inhaled nitric oxide Sponsor: Roger Alvarez	NCT04398290	United States, Florida	A phase 2, double-blinded, placebo-controlled, randomized trial to assess the efficacy and safety of pulsed iNO in subjects with COVID-19.	1.Incidence of treatment emergent adverse events [ Time Frame: Up to 14 days ]	Not yet recruiting	Medium

			N = 30 patients who are hospitalized and require supplemental oxygen	2.Incidence of adverse events [ Time Frame: Up to 6 hours ] 3.Incidence of methemoglobinemia [ Time Frame: Up to 14 days ]	Estimated Primary Completion Date: January 1, 2021	
GLS-1200 (nitrogen oxide)  Sponsor: GeneOne Life Science, Inc.	NCT04408183	United States, Pennsylvania	Phase II randomized, placebo-controlled, double-blind study will assess whether topical GLS-1200 applied via nasal spray atomizer is well-tolerated and can reduce the incidence of confirmed SARS-CoV-2 infection  N=225 adult healthcare professional randomized 2:1 to GLS-1200 or placebo.	1. Evaluate the number of GLS-1200 topical nasal spray adverse events as assessed by CTCAE v5.0 [ Time Frame: 4 weeks of treatment ]  2. Incidence of SARS-CoV-2 infection, confirmed by PCR relative to treatment group [ Time Frame: 4 weeks of treatment ]	Recruiting  Estimated Primary Completion Date: September 2020	Medium
Nitric Oxide  Sponsor: University Health Network, Toronto	NCT04383002	Not stated	A phase 1, open-label, randomized study to test whether high dose inhaled nitric oxide is safe and can reverse virus burden and respiratory failure  N = 20 patients on mechanical ventilation.	COVID-19 PCR status at completion of treatment (day 3) from tracheal aspirate [ Time Frame: 3 days ]	Not yet recruiting  Estimated Primary Completion Date: December 2020	Low
Nitric Oxide  Sponsor: Beyond Air Ltd	NCT04397692	United States, Arkansas	An open label, randomized, study to obtain information on the safety and efficacy of 80 ppm Nitric Oxide given in addition to the standard of care of patients with COVID-19 caused by SARS-CoV-2 compared to standard of care only.  N = 20	Time to deterioration [ Time Frame: 14 Days ]	Not yet recruiting  Estimated Primary Completion Date: August 24, 2020	Low
Nitric Oxide Releasing Solution  Sponsor: Sanotize Research and Development corp.	NCT04337918	Not stated	Open label, multi-center, prospective, randomized, controlled, phase II, parallel group trial. N=200 healthcare Workers and Individuals at Risk of Infection randomized to nasal Nitric oxide releasing solution or no treatment. Furthermore, in a substudy 10 COVID-19 positive volunteers will receive the treatment.	Prevention Study: swab positive COVID-19 or presentation of clinical symptoms as measured by fatigue with either fever >37.2 (oral)and/or a persistent cough. Treatment Sub Study: hospitalization for COVID-19/flu-like symptoms and/or needing oxygen therapy, BIPAP/CPAP, intubation and mechanical ventilation following enrollment.	Not yet recruiting; Estimated Primary Completion: July 31, 2020	Low
Nitrogen oxide;  Sponsor: Massachusetts General Hospital	NCT04305457	Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda,	Phase 2 randomised open label trial N=240 with mild covid-19 Randomised to NO or no intervention	Reduction in intubation and mechanical ventilation (time frame 28 days)	Not yet recruiting; Estimated primary completion date/study completion:April 2021/ April 2022	Low

		Ospedale Maggiore Policlinico				
Nitrogen oxide; Sponsor: Massachusetts General Hospital	NCT04306393	Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico	Phase 2 randomised open label trial N=200 with severe covid-19 randomised to NO or no intervention	Change of arterial oxygenation at 48 hours from enrollment [ Time Frame: 48 hours ]	Not yet recruiting; Estimated primary completion date/study completion: March 2021/ March 2022	Low
iNO (inhaled nitric oxide) Sponsor: Bellerophon	NCT04358588	Not stated	Compassionate use of pulsed, inhaled Nitric Oxide (iNO) for the treatment of patients with mild or moderate coronavirus disease (COVID-19)	Not Applicable	Available	Low
Nitrogen oxide; Sponsor: Massachusetts General Hospital	NCT04312243	Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico	Preventive study: Phase 2 open label trial of 460 healthcare workers.	Percentage of subjects with COVID-19 diagnosis	Not yet recruiting; Estimated primary completion date/study completion: March 2021/ March 2022	Low
NaCl Solution Sponsor: University of Edinburgh	NCT04382131	United Kingdom	Randomised controlled, parallel group trial of hypertonic saline nasal irrigation and gargling (HSNIG) compared to standard care in participants with clinically suspected or confirmed COVID-19 being managed at home. N = 405 randomized to NaCl Solution prepared at home using water and salt.	Time to resolution of symptoms as defined by the single question 'how unwell do you feel today. [Time Frame: Maximum of 14 days]	Not yet recruiting Estimated Primary Completion Date: July 31, 2020	Medium
Nebulized amniotic fluid Sponsor: University of Utah	NCT04319731	Not provided	Phase 1 study Single arm study N=10	Ventilator Free Days Duration of supplemental oxygen use	Recruiting Estimated primary completion March 20, 2021	Low
Oxygen-ozone therapy, SivoMixx (dietary supplement), Hydroxychloroquine, azithromycin	NCT04366089 NCT04359095	Italy (multiple sites) Colombia	Phase 2, randomized, single-blinded (outcomes assessor) trial to evaluate the effectiveness of an ozone therapy-based intervention (accompanied by supplementation with probiotics) in containing the progression of COVID-19	Delta in the number of patients requiring orotracheal intubation despite treatment [ Time Frame: 21 days ] 1. Mortality	Recruiting Not yet recruiting Estimated Study Completion Date: December 31, 2020	Medium

<p>Sponsor: Roberto Poscia MD, PhD, Azienda Policlinico Umberto Hydroxychloroquine + lopinavir/ritonavir or azithromycin</p> <p>Sponsor: Universidad Nacional de Colombia</p>			<p>and in preventing the need for hospitalization in intensive care units.</p> <p>N=152 randomized to Oxygen-ozone and probiotic (SivoMixx) + standard of care or standard of care only.</p> <p>In this study standard of care includes Azithromycin and hydroxychloroquine. Phase 2/3, open-label, controlled, randomized trial on HCQ + ritonavir/lopinavir or azithromycin vs standard treatment</p> <p>N = 1600, adults with Covid-19 infection requiring hospital treatment Arm 1: HCQ Arm 2: HCQ + ritonavir/lopinavir Arm 3: HCQ + Azithromycin Arm 4: Standard treatment</p>	<p>2. Number of Participants with Treatment Related Severe Adverse Events as Assessed by the NCORP Guidance for Collection of Adverse Events Related to COVID-19 Infection</p> <p>[Time Frame: Post-intervention at day 28]</p>		
<p><b>Poractant Alfa</b> (Curosurf)</p> <p>Sponsor: Dr Christophe LENCLUD</p>	NCT04384731	France	<p>Phase 2, single-blinded, randomized trial on the use of Poractant Alfa by Fiberoptic Bronchoscopy-directed Endobronchial Administration in ARDS due to Covid-19 pneumonia</p> <p>N = 20, in intensive care for Covid-19 receiving intubation and mechanical ventilation since less than 72h</p>	<p>Evolution of the PaO<sub>2</sub> / FiO<sub>2</sub> ratio between the measurements taken before (t0) and one hour after the end of the invasive procedure (H1). [Time Frame: 1 hour post treatment]</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: November 30, 2020</p>	Low
<p><b>Pulmozyme</b></p> <p>Sponsor: Boston Children's Hospital</p>	NCT04402944	Not stated	<p>Phase 2, randomized, double-blind trial.</p> <p>N=60 COVID-19 patients admitted to the ICU randomized 2:1 to Pulmozyme (2.5 mg BID for up to 28 days) or placebo.</p>	<p>Ventilator-free days at 28 days [ Time Frame: 28 days</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: May 31, 2020</p>	High
<p><b>Dornase Alfa (Pulmozyme)</b></p> <p>Sponsor: University of Missouri-Columbia</p>	NCT04402970	United States, Missouri	<p>Phase 3, non-randomized, single-center, open-label clinical trial to evaluate the potential benefit and cellular mechanism of nebulized dornase alfa administration in mechanically ventilated patients with SARS-CoV-2 related ARDS.</p> <p>N=20 adult patients hospitalized and mechanically ventilated for illness related to SARS-CoV-2.</p>	<p>Improvement in PaO<sub>2</sub>/FiO<sub>2</sub> [ Time Frame: 14 days ]</p>	<p>Recruiting</p> <p>Estimated Primary Completion Date: May 31, 2021</p>	Low

			Patient to receive inhaled/nebulized dornase alfa (Pulmozyme) 2.5 mg twice daily in the ventilator circuit for 3 days, along with standard of care for ARDS			
Sodium Bicarbonate  Sponsor: Mansoura University	NCT04374591	Egypt	An early phase 1, single-group, open-label study to evaluate if inhalable sodium bicarbonate is a possible adjuvant treatment of patients with COVID-19  N = 20	Time to clinical recovery [ Time Frame: 7 days ]	Active, not recruiting  Estimated Study Completion Date: June 1, 2020	Low

## Other

Product	Study identifier	Study location	Study design	Primary outcome	Status of trial	Importance
ABX464  small molecule undergoing development for inhibiting HIV replication  Sponsor: Abivax S.A.	NCT04393038  ABX464-401	France	Phase 2/3, randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of ABX464 in treating inflammation and preventing COVID-19 associated acute respiratory failure in patients aged $\geq 65$ and patients aged $\geq 18$ with at least one additional risk factor who are infected with SARS-CoV-2.  N=1034 randomized 2:1 to standard of care + ABX464 50 mg QD or standard of care + placebo.	Rate of patients with no invasive or non-invasive mechanical ventilation (IMV and NIV, respectively), but excluding simple nasal/mask oxygen supplementation, and who are alive [ Time Frame: at the end of the 28-day treatment period ]	Recruiting  Estimated Primary Completion Date: December 30, 2020	High
AT-527  pan-genotypic purine nucleotide prodrug  Under development for hepatitis C  Sponsor: Atea Pharmaceuticals, Inc.	NCT04396106	United States (multicentre)	Phase 2, double-blinded, placebo-controlled, randomized trial on the Efficacy of AT-527 in Subjects With Moderate COVID-19  N = 180, hospitalized with moderate Covid-19 and with one of four risk factors (obesity, hypertension, diabetes or asthma) randomized to AT-527 + SOC or SOC alone	1. Proportions (active vs. placebo) of subjects who progress to respiratory failure 2. Proportions (active vs. placebo) of subjects experiencing treatment-emergent adverse events  [Time Frame: Day 14 and Follow-up Day 14]	Not yet recruiting  Estimated Primary Completion: July 2020	High
Azoximer bromide  A combined product with immunomodulating, detoxifying, and	NCT04381377	Russian Federation	A phase 2/3, randomized, double-blind, placebo-controlled comparative clinical study of the safety and efficacy of polyoxidonium®, lyophilizate for solution for injections and topical application	Clinical status of the patient (according to 7-point ordinal scale) [ Time Frame: Day 15 ]	Recruiting  Estimated Primary Completion Date: April 2021	High

antioxidative action used in Russia Sponsor: NPO Petrovax			N = 394 patients with coronavirus disease			
Bactek-R Sponsor: Inmunotek S.L.	NCT04363814	Not stated	A phase 3, prospective, open-label, randomized pilot study to evaluate the efficacy and safety of BACTEK-R (MV130) compared to control group (standard therapy).  N = 100 patients with mild pneumonia due to COVID-19 infection.	Clinical recovery [ Time Frame: 2 weeks ]  Clinical worsening [ Time Frame: 2 weeks ]	Not yet recruiting  Estimated primary Completion Date: July 01, 2020	Medium
BDB-001 Sponsor: Staidson (Beijing) Biopharmaceutical Co., Ltd. and Beijing Defengrui Biological Technology Co., Ltd.	2020-001671-32	Spain?	Phase 2, multi-center, open-label, randomized parallel controlled evaluation on the efficacy and safety of BDB-001 injection in the treatment of progressive severe COVID-19  N=60 adult patients with severe COVID-19 randomized to BDB-001 or conventional treatment	Percentage of patient number (%) achieve recovery [Oxygenation index $\geq$ 300mmHg from baseline (day 1 prior to investigational drug administration), in supine position OR discharge from hospital]. Timepoints of evaluation: days 3, 7, 11, 14	Ongoing  Estimated primary completion date: 2021-01-01	Low
Camostat mesylate Licensed for pancreatitis and reflux esophagitis after gastrectomy in Japan	NCT04321096  EudraCT: 2020-001200-42	Denmark, at hospitals across DK	A multicenter, randomised, double blinded, placebo-controlled trial N=180 randomised to Camostat mesylate, or placebo	Days to clinical improvement from study enrolment [ Time Frame: 30 days ]	Recruiting;  Estimated Primary Completion: December 31, 2020	High
Camostat + hydroxychloroquine Sponsor: Heinrich-Heine University, Duesseldorf	NCT04338906	Not stated	Double-blinded, randomized, placebo-controlled trial. N=334 patient with mild COVID-19 randomised to camostat + hydroxychloroquine or placebo + hydroxychloroquine	Hospitalisation, time frame: day 14 from baseline	Not yet recruiting; Estimated Primary Completion; June 1, 2021	High
Camostate Mesylate Sponsor: Yale University	NCT04353284	United States	Phase 2, double-blinded, placebo-controlled, randomized trial on whether Camostate Mesylate in Covid-19 infection, can reduce viral load and reduce transmission  N = 114, age > 18, with Covid-19 infection, not requiring hospitalization	Change in SARS-COV-2 viral load [Time Frame: 2 days]	Not yet recruiting  Estimated Primary Completion Date: May 31, 2021	Medium
CAP-1002 Allogeneic Cardiosphere-Derived Cells Sponsor: Capricor Inc. CAP-1002 has been granted orphan drug	NCT04338347	United States, California	Expanded access. COVID-19 patients, who are in critical condition as indicated by life support measurements.	Safety and outcome data (including mortality, need for additional levels of supportive care, length of stay)	Available	Low

designation by the FDA for the treatment of DMD.						
CMAB806	ChiCTR2000030196 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49883">http://www.chictr.org.cn/showproj.aspx?proj=49883</a>	Hubei, China	Phase 2, a multicenter, single arm, open label trial N=60 with moderate or severe covid-19 with elevated IL6	Relive of cytokine release syndrome	Not yet recruiting; From 2020-02-20 To 2020-05-31	Low
CM4620 Injectable Emulsion  CM4620-IE is a small molecule CRAC channel inhibitor that prevents CRAC channel overactivation, which can cause pulmonary endothelial damage and cytokine storm in COVID-19. Sponsor: CalciMedica, Inc	NCT04345614	United States, Minnesota + Michigan	Phase 2 randomized controlled parallel open-label Study of CM4620 Injectable Emulsion in Patients With Severe COVID-19 Pneumonia  N = 120 age > 18 with PCR confirmed COVID-19 randomized to receive CM4620-IE 2.0 mg/kg on Day 1 and 1.6 mg/kg on Days 2 and 3 or local standard care.  Other Name: CM4620-IE	Improvement on a 7-point Ordinal Scale [Time Frame: Upon enrollment into the study through hospital discharge, up to day 28]	Recruiting  Estimated primary completion July 2020	Medium
CytoSorb Cytokine absorption	NCT04324528	Germany	Open label randomized controlled trial. N=30 critically ill patients randomized to ECMO +/- cytokine absorption	Interleukin-6 (IL-6) level after 72 hours	Recruiting, Estimated Primary Completion: September 26, 2020	Medium
Dalargin stable leu-enkephalin analog  Sponsor: Burnasyan Federal Medical Biophysical Center	NCT04346693	Russia	Open, randomized study of the effectiveness of the drug Dalargin for the prevention and treatment of symptoms of pulmonary complications in patients with coronavirus infection (SARS-COVID-19).  N=320 hospitalised patients randomized to Standard therapy, Dalargin inhalation, Dalargin intramuscular, or Dalargin inhalation + intramuscular injection  All patients will receive standard therapy: Hydroxychloroquine + azithromycin + / - tocilizumab.	1.The change of viral load in patients with SARS-COVID-19. [ Time Frame: Upon patient inclusion in the study, after 96 hours and on the 10day; ]  2.The frequency of development of Acute Respiratory Distress Syndrome (ARDS) [ Time Frame: up to 8 months ]  3.Duration of hospitalization [ Time Frame: through study completion, an average of 8 months ]  4.The frequency of early mortality [ Time Frame: up to 30 days ]  5.The frequency of late mortality [ Time Frame: up to 90 days ]  6.Clinical status at the time of completion of participation in the study [ Time Frame: through study completion, an average of 8 months ]	Enrolling by invitation  Estimated Primary Completion Date: December 2020	Low

<p>DAS181</p> <p>DAS181 is a sialidase fusion protein that cleaves both the Neu5Ac <math>\alpha(2,3)</math>- and Neu5Ac <math>\alpha(2,6)</math>-Gal linkages of sialic acid from respiratory endothelial cell surfaces. Has been tested in influenza and parainfluenza.</p> <p>Sponsor: Ansun Biopharma, Inc.</p>	<p>NCT04354389</p> <p>2020-001874-30</p>	<p>Italy (multicenter)</p>	<p>A Phase II/III, Multicenter, Randomized, Placebo-Controlled, Double-Blind Study.</p> <p>N=82 subjects diagnosed with lower respiratory tract COVID-19 who require supplemental oxygen <math>\geq</math> 2 LPM at the time of randomization. Randomized to DAS181+ standard local care for COVID-19 or Placebo+ standard local care for COVID-19.</p> <p>Two-staged design. N=22 subjects with COVID-19 and clinically significant impairment of respiratory function will be enrolled and evaluated. If pre-determined safety and efficacy parameters are achieved, the study will proceed to Stage 2 and expand enrollment with an additional sixty (n=60) subjects or more to provide adequate power to potentially demonstrate statistically significant therapeutic efficacy.</p>	<p>COVID-19 Clinical Status Scale (CCSS) [ Time Frame: Day 14 ]</p> <p>Percent of subjects improved (1 to 7 where higher score means worse outcome)</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: June 30, 2020</p>	<p>Medium</p>
<p>Deferoxaminmesilat (Desferal) iron chelator</p>	<p>NCT04333550</p>	<p>Iran, Islamic Republic of</p>	<p>Randomised trial. N=50 randomised to Deferoxamine or standard of care</p>	<p>Mortality rate [ Time Frame: up to 20 days ]</p>	<p>Recruiting; Estimated Primary Completion: September 2020</p>	<p>Low</p>
<p>Desferal</p> <p>Sponsor: Hesham Al-Inany</p>	<p>NCT04389801</p>	<p>Egypt ??</p>	<p>Phase 4, randomized, single-blinded (participant) trial to evaluate the efficacy of using Desferal injections for prevention of ARDS in moderate covid-19 cases with fever, chest tightness and relevant chest images.</p> <p>N=200 patients positive for Covid 19 admitted to hospital with chest tightness randomized 1:1 to standard care or standard care + Desferal</p>	<p>Mortality rate [ Time Frame: two weeks ]</p>	<p>Not yet recruiting</p> <p>Estimated Primary Completion Date: September 30, 2020</p>	<p>Medium</p>
<p>EIDD-2801</p> <p>An orally bioavailable NHC-prodrug (<math>\beta</math>-D-N4-hydroxycytidine-5'-isopropyl ester) that should be reducing lung damage</p> <p>Not yet licensed.</p>	<p>Not initiated yet</p> <p><a href="https://stm.sciencemag.org/content/scitransmed/early/2020/04/03/scitranslmed.abb5883.full.pdf">https://stm.sciencemag.org/content/scitransmed/early/2020/04/03/scitranslmed.abb5883.full.pdf</a></p>	<p>-</p>	<p>-</p>	<p>-</p>	<p>Only tested in mice, but soon ready for human trials. Clinical studies are expected to begin later this spring</p>	<p>Low</p>

	<a href="https://www.eurekalert.org/pub_releases/2020-04/uonc-ana040320.php">https://www.eurekalert.org/pub_releases/2020-04/uonc-ana040320.php</a>					
DFV890 Sponsor: Novartis Pharmaceuticals	NCT04382053	Multicenter	Phase 2, open-label, multi-center, controlled, randomized trial on the efficacy of DFV890 for the treatment of COVID-19 associated pneumonia and impaired respiratory function  N = 120, hospitalized with COVID-19 pneumonia, randomized to DFV890 + standard of care or standard of care	APACHE II severity of disease score on Day 15 or on the day of discharge (whichever is earlier) [Time Frame: up to Day 15]	Not yet recruiting  Estimated Primary Completion Date: July 29, 2020	medium
EDP1815, Dapagliflozin, Ambrisentan  EDP1815 is a monoclonal microbial product candidate under development for inflammatory diseases  Sponsor: Cambridge University Hospitals NHS Foundation Trust	NCT04393246  TACTIC-E	United Kingdom	Phase 2/3, multicentre, randomized parallel arm, open-label platform trial for investigating potential treatments for COVID-19 disease.  N=1407 pre-ICU patients admitted with COVID-19, aged 18 and over, randomized 1:1:1 to EDP1815 + standard of care or Dapagliflozin + Ambrisentan + standard of care or standard of care only.	Time to incidence of the composite endpoint of: Death, Mechanical ventilation, ECMO, Cardiovascular organ support, or Renal failure [ Time Frame: up to Day 14 ]	Not yet recruiting  Estimated Primary Completion Date: January 20, 2021	Medium
Escin	NCT04322344	Italy	Non-randomised double blinded trial N=120 patients with Treated with either high dose escin, low dose escin or standard therapy	All cause mortality Clinical status	Recruiting; Estimated Primary Completion: June 30, 2020	Low
FT516 An off-the-shelf NK cell product candidate  Sponsor: Masonic Cancer Center, University of Minnesota	NCT04363346	United States, Minnesota	A phase I, open-label, non-randomized study to identify the maximum tolerated dose of FT516 using 3 dose-escalation strategies (number of doses and cell dose) for the treatment of coronavirus disease 2019 (COVID-19).  N = 12 hospitalized patients	Number of participants with Dose Limiting Toxicity Events [ Time Frame: within 7 days after the last dose of FT516 ]	Not yet recruiting  Estimated Study Completion Date: January 2022	Low
GD31 Nucleoside analog	ChiCTR2000029895 <a href="http://www.chictr.org.cn/showproj.aspx?proj=49569">http://www.chictr.org.cn/showproj.aspx?proj=49569</a>	Guangdong, China	Single arm, N=160	The negative conversion rate and negative conversion time of novel coronavirus nucleic acid	Recruiting; From 2020-02-16 To 2020-12-31	Low
Gelsolin Recombinant human plasma gelsolin (Rhu-pGSN), an actin binding protein	NCT04358406	Not stated yet	A Phase 2 Randomized, Double-Blind, Placebo-Controlled, Proof-Of-Concept Study. N=60 patients with COVID-19 meeting the WHO severity score of 4-6	Efficacy: Proportion of subjects alive not on vasopressors, mechanical ventilator, and dialysis [ Time Frame: Day 14 ] Safety and Tolerability: Proportion of subjects with serious adverse events	Not yet recruiting; Estimated Primary Completion: August 2020	High

Sponsor: BioAegis Therapeutics Inc.				(SAEs) [ Time Frame: Continuous through Day 28 ]		
Chlorine dioxide oral Sponsor: Genesis Foundation	NCT04343742	Colombia, Bogota	Case-only observational study on the effectiveness of oral Chlorine Dioxide in treatment of COVID-19  N=20, with active COVID-19 infection	Negative testing of COVID-19 [Time frame: 7 days]	Recruiting  Estimated Primary Completion Date: April 7, 2020	Low
DeltaRex-G  (a non-pathogenic, replication incompetent, RNA virus-based gene vector. Can mimic RNA virus SARS-CoV-2 by binding to viral receptors in human cells and may serve as a decoy to prevent SARSCoV-2 cell entry by crowding/ neutralizing the SARS-CoV-2 even where the receptors may be different)  Sponsor: Aveni Foundation	NCT04378244	Not stated	A phase 1/2, open-label single-group study using deltarex-g gene therapy for symptomatic COVID-19  N = 18	Maximum Tolerated Dose [ Time Frame: 3 weeks ]	Not yet recruiting  Estimated Primary Completion Date: January 12, 2021	Low
HEMO2life, M101. Company: Hemarina. Hemoglobin derived from marine worms, that can bind 40 times more oxygen than human hemoglobin Not yet licensed, but used in patients after kidney transplantation	Phase 1 <a href="https://www.dr.dk/nyheder/viden/franske-forskere-undersoeger-om-sandorme-kan-hjaelpe-coronapatienter-i-respirator">https://www.dr.dk/nyheder/viden/franske-forskere-undersoeger-om-sandorme-kan-hjaelpe-coronapatienter-i-respirator</a> <a href="https://www.hemarina.com/news-and-events/detail/coronavirus-la-molecule-dhemarina-peut-sauver-des-vies-en-replacant-les-respirateurs-artificiels-pour-oxygener-des-patients-atteints-de-covid-19-69">https://www.hemarina.com/news-and-events/detail/coronavirus-la-molecule-dhemarina-peut-sauver-des-vies-en-replacant-les-respirateurs-artificiels-pour-oxygener-des-patients-atteints-de-covid-19-69</a>	2 sites: Pitié-Salpêtrière Hospital and Georges Pompidou Hospital both in Paris	Multi centre. IV treatment with HEMO2Life in COVID-19 patients in respirator, whereby the oxygen level increase, as more oxygen will be spread in the body. In this way, the patient will spend less time in the ICU and the respirator	Not specified. But most likely time in ICU and/or respirator	Ongoing	Low

IMU-838  (By inhibiting dihydroorotate dehydrogenase (DHODH), a key enzyme of pyrimidine de novo biosynthesis, metabolically activated T and B immune cells experience metabolic stress, and the release of Th1 and Th17 key cytokines including IL-17A, IL-17F and IFN $\gamma$ is inhibited). Not licensed. Under investigation for RRMS, inflammatory bowel disease and other chronic inflammatory and autoimmune diseases. Sponsor: Immunic AG	NCT04379271	Not stated	A phase 2/3, randomized, placebo-controlled, double-blinded study to evaluate the efficacy, safety and tolerability of IMU-838 as addition to investigator's choice of standard of care therapy  N = 600 patients with coronavirus disease 19	Proportion of patients without any need* for INV until end-of-study (EoS) [ Time Frame: Throughout the Study (Day 0 to Day 28) ]	Not yet recruiting  Estimated Primary Completion Date: October 2020	High
Aerosolized 13 cis retinoic acid (Isotretinoin)  Sponsor: Kafrelsheikh University	NCT04396067	Egypt	Phase 2, open-label, placebo-controlled, randomized trial.  N = 360, adult SARI patients with Covid-19 infection receiving mechanical ventilation  Aerosolized 13 cis retinoic acid, Aerosolized all trans retinoic acid, or placebo	Lung injury score (time frame: 7 days)	Not yet recruiting  Estimated Primary Completion: September 2020	Low
KB109  Sponsor: Kaleido Biosciences	NCT04414124	United States	A randomized, open-label, prospective, parallel-group controlled clinical study.  N=400 adults with mild/moderate COVID-19.	Number of patients experiencing study-product related treatment-emergent adverse events (TEAEs) [ Time Frame: Day 1 to Day 35 ]	Recruiting  Estimated Primary Completion Date: October 2020.	Low
LAU-7b (fenretinide)  Sponsor: Laurent Pharmaceuticals Inc.	NCT04417257	Canada	Phase 2 randomized, double-blind, placebo-controlled.  N=300 age 45 or older with COVID-19 symptoms and at least one of listed factors/co-morbidities.	Health status of the patient on the 7-point ordinal scale (World Health Organization) compared to placebo [ Time Frame: On Day 14 ]	Not yet recruiting  Estimated Primary Completion Date: December 15, 2020	High
LEAF-4L7520 + LEAF-4L6715	NCT04378920	France	A phase 1/2 non-randomized, open-label study of trans crocetin.	Proportion of patients showing an increase of at least 25% of PaO <sub>2</sub> /FiO <sub>2</sub> ratio [ Time Frame: 24 hours ]	Recruiting	Low

Sponsor: Institut de Cancerologie Strasbourg Europe			N = 180 patients who experience severe acute respiratory distress syndrome (ARDS) and are receiving artificial respiratory support due to COVID-19		Estimated Primary Completion Date: July 31, 2020	
Levamisole + budesonide + formoterol Sponsor: Fasa University of Medical Sciences	NCT04331470	Not stated	Open label, randomized controlled trial. N=30 patients with COVID -19 randomised to Levamisole + budesonide + formoterol + Lopinavir+Ritonavir + Hydroxychloroquine, or Lopinavir+Ritonavir + Hydroxychloroquine	Clear chest CT-scan and PCR test [ Time Frame: between 3-7 days ]	Recruiting; Estimated Primary Completion: April 20, 2020	Low
LSALT Peptide (DPEP-1 inhibitor) Sponsor: Arch Biopartners Inc.	NCT04402957	Not stated	Phase 2, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Proof of Concept Trial of LSALT Peptide as Prevention of Acute Respiratory Distress Syndrome (ARDS) and Other Organ Injuries in Patients Infected With SARS-CoV-2  N=60 hospitalized covid-19 patients between 45 and 80 years of age randomized 1:1 to LSALT Peptide or placebo.	Development of Acute Respiratory Distress Syndrome (ARDS) and Other Organ Injuries [ Time Frame: 28 days ]	Not yet recruiting  Estimated Primary Completion Date: December 31, 2020	High
LY3819253 (LY-CoV555) Sponsor: Eli Lilly and Company	NCT04411628  J2W-MC-PYAA	United States (multiple states)	Phase 1, randomized, placebo-controlled, double-blind, sponsor unblinded, single ascending dose, first in human study to evaluate the safety, tolerability, pharmacokinetics and pharmacodynamics of intravenous LY3819253 in participants hospitalized for COVID-19.  N=40 randomized to LY3819253 or placebo.	Number of Participants with One or More Serious Adverse Event(s) (SAEs) Considered by the Investigator to be Related to Study Drug Administration [ Time Frame: Baseline through Day 60 ]	Recruiting  Estimated Primary Completion Date: August 23, 2020	Low
MAS825 Sponsor: Novartis Pharmaceuticals	NCT04382651	Not stated	A phase 2, randomized, placebo-controlled, double-blind study to assess efficacy and safety of MAS825 for the treatment of sars-cov-2 infected patients  N = 120 patients with COVID-19 pneumonia and impaired respiratory function	APACHE II severity of disease score on Day 15 or on day of discharge (whichever is earlier) [ Time Frame: Up to 15 days ]	Not yet recruiting  Estimated Primary Completion Date: July 29, 2020	High

MCN (Methylene blue, vitamin C, N-acetyl cysteine)  Sponsor: Mashhad University of Medical Sciences	NCT04370288	Iran	Phase 1, randomized, single-blinded (outcomes assessor)  N=20 covid-19 positiv subjects with need for intubation and mechanical ventilation randomized to MCN (Methylene blue, vitamin C, N-acetyl cysteine) or standard medical therapy.	Proportion of patients remaining free of need for mechanical ventilation in both groups [ Time Frame: Day 7 ]	Recruiting  Estimated Study Completion Date: September 21, 2020	Low
Mycobacterium w (autoclaved) Sponsor: Cadila Pharmaceuticals	NCT04347174	Chandigarh, India	Randomised, blinded, two arms, active comparator controlled, parallel assignment  Treatment of critically ill COVID-19 patients  N: 40 18 years and older	Sequential Organ Failure Assessment (SOFA) scores day 3, day 7, day 14, day 21, day 28	Not yet recruiting  Estimated study start: Apr 20, 2020  Estimated primary completion data: Jun 30, 2020	Low
Mycobacterium w  Sponsor: Cadila Pharmaceuticals	NCT04353518	India	Phase 3, double-blinded, placebo-controlled, randomized trial on the efficacy of autoclaved Mycobacterium w in preventing Covid-19 infection  N = 4000, age >17, with recent history of close contact with Covid-19 patients	Number of subject acquiring COVID-19 infection [Time Frame: From first dosing to week 1, week 2, week 4, week 8 or at any time during the study till 8 week post first dosing.]	Not yet recruiting  Estimated Primary Completion Date, March 30, 2021	High
Mycobacterium w (autoclaved)  Sponsor: Cadila Pharmaceuticals	NCT04358809	India	Randomized, double-blinded, two arms, placebo controlled, clinical trial. N=480 randomised to mycobacterium W or placebo	Number of patients with increased disease severity [ Time Frame: From baseline to Day 3, Day 7, Day 14, Day 21, Day 28 or at any time during the study till 28 days post first dosing. ]	Not yet recruiting  Estimated Study Completion Date: April 30, 2021	Medium
N-803  An interleukin-15 (IL-15) superagonist complex in combination with Bacillus Calmette-Guerin Sponsor: ImmunityBio, Inc.	NCT04385849	Not stated	A phase 1b, randomized, blinded, placebo-controlled study to assess the safety and immunostimulatory activity of N-803.  N = 30 adult subjects with COVID-19.	1. Preliminary safety and efficacy evaluation of N-803 by adverse event (AE) incidence [ Time Frame: 2 weeks ] 2. Preliminary safety and efficacy evaluation of N-803 by subject clinical status using a the 7-point ordinal scale. [ Time Frame: 2 weeks ]	Not yet recruiting  Estimated Primary Completion Date: July 11, 2020	Medium
NT-17  (Long Acting Interleukin-7)  Sponsor: Washington University School of Medicine	NCT04380948	United States, Missouri	A phase 1, randomized, double-blind, placebo-controlled pilot study evaluating the effect of NT-17 to enhance immune clearance of SARS-CoV-2  N = 30 COVID-19 patients without severe disease will be randomized on a 2:1 basis to receive NT-17 or placebo.	Change in absolute lymphocyte count (ALC) [ Time Frame: From baseline to Day 14 ]	Not yet recruiting  Estimated Primary Completion Date: February 28, 2021	Medium

OrganicellTM Flow Sponsor: Organicell Regenerative Medicine	NCT04384445	United States, Georgia	Phase 1/2, randomized, parallel design, double-blinded trial to evaluate the safety and potential efficacy of i.v. infusion of OrganicellTM Flow for the treatment of moderate to severe SARS related to COVID-19 infection vs. placebo. N=20 randomized 1:1 to OrganicellTM Flow + standard of care or placebo + standard of care.	To demonstrate the safety of OrganicellTM Flow administered intravenously in patients with severe acute respiratory syndrome (SARS) related to COVID-19 infection. [ Time Frame: Day 60 ]	Not yet recruiting Estimated Primary Completion Date: September 30, 2020	Low
Ozone therapy  Sponsor: Javier Hidalgo Tallón	NCT04359303  (OzonoCOVID19)	Spain	A phase 3, double-blinded, randomized control trial to evaluate the safety and efficacy of indirect endovenous ozone therapy.  N = 50 non-intubated patients randomized to control or treatment group	COVID19 clinical scale [ Time Frame: through study completion, an average of 3 weeks ]	Not yet recruiting  Estimated Study Completion Date: June 2020	Medium
Ozone Auto-hemotherapy  Sponsor: Institut d'Investigació Biomèdica de Girona Dr. Josep Trueta	NCT04370223	Spain  Multicenter	Phase 3, open-label, controlled, randomized trial on the use of ozone auto-hemotherapy in hospitalized patients with Covid-19  N = 208, age 18-90, hospitalized with Covid-19 and pneumonia randomized to ozone auto-hemotherapy (mixing 100-200ml of blood with ozone every 12h during 5 days) + standard treatment or standard treatment alone	Rate of patients achieving improvement in clinical condition at day 14 after recruitment [Time Frame: 14 days]	Not yet recruiting  Estimated Study Completion Date: December 25, 2020	Low
Ozone Therapy  Sponsor: Marmara University	NCT04400006	Turkey	Case-only Prospective study of the prophylactic effect of at least ten sessions of ozone therapy. N=71	Survey taken by telephone calls: It involved questions about age, gender, height, weight, occupation, comorbidities, and concurrent medications, in addition to a detailed query for COVID-19 infection.	Completed Date: May 17, 2020	Low
PH94B  Under development for Social Anxiety Disorder.  Sponsor: VistaGen Therapeutics, Inc.	NCT04404192	United States, New York	Phase 2, single-arm, open-label study of the efficacy and safety of PRN PH94B Neuroactive Nasal Spray in the Treatment of Adjustment Disorder With Anxiety (AjDA) Associated With COVID-19  N=30 with diagnosis of Adjustment Disorder with Anxiety (AjDA)	Hamilton Anxiety Scale [ Time Frame: 14 days ]	Not yet recruiting  Estimated Primary Completion Date: July 2021	Low

			Ved ikke hvor relevant dette studie er – positiv covid-19 er et eksklusionskriterie			
Povidone-Iodine Sponsor: Stanford University	NCT04347954	United States, California	Randomised, double-blind controlled trial. N=45 subjects Positive test for COVID-19 within two days of enrollment randomised to Povidone-Iodine 2%, Povidone-Iodine 0.5%, or Isotonic saline 0.9%	Mean change in viral titers of SARS-CoV-2 [ Time Frame: Baseline, Day 3, Day 6, and Day 9 ]	Not yet recruiting; Estimated Primary Completion: July 2020	Medium
Povidone-Iodine Sponsor: Hampshire Hospitals NHS Foundation Trust	NCT04393792	United Kingdom	A phase 1, open-label, randomized trial to evaluate if sinus rinse and mouth wash reduce viral load.  N = 40 COVID-19 positive individuals and their co-residents. Parallel group design with 1:1 randomised allocation to treatment or control	Change in viral load in the oral and nasopharyngeal cavity [ Time Frame: Day 0, 2, 3, 7, 14 ]	Recruiting  Estimated Primary Completion Date: August 2020	Low
Povidone/ Iodine vs Chlorhexidine oral/nasal rinse Saline oral/nasal rinse Sponsor: NYU Langone Health	NCT04344236	United States, New York	Phase 2, randomized, controlled, open label, parallel design, single site study.  N=48 COVID-19 positive patients randomized to Saline oral/nasal rinse or 0.5% Povidone/Iodine oral/nasal rinse or 0.12% Chlorhexidine oral/nasal rinse or nothing (control group). Patients will then be tested for COVID-19 once daily in the evening for 7 days and viral loads will be measured.	Viral load (and/or cycle time to PCR as a proxy for quantitative viral load) in the nasopharynx and oropharynx [ Time Frame: 7 days ]	Recruiting  Estimated Primary Completion Date: May 1, 2020	Low
Povidone-iodine (PVP-I) Sponsor: Alexandra Kejner	NCT04364802	United States, Kentucky	A phase 2, non-randomized, open-label trial evaluate the efficacy of PVP-I as prophylaxis in Coronavirus Disease 2019 (COVID19)-negative front-line health care workers and hospital patients compared to control group.  N = 250	1.Percent of healthcare workers testing positive for COVID-19. [ Time Frame: 3 weeks ]  2.Percent of patients testing positive for COVID-9. [ Time Frame: 2 weeks ]	Not yet recruiting  Estimated Study Completion Date: May 2021	Low
Povidone-Iodine Sponsor: Poitiers University Hospital	NCT04371965	France	A phase 2, randomized controlled open label trial to reduce naso- pharyngeal viral load.  N = 24 patients with positive nasopharyngeal SARS-CoV-2 carriage will be randomized (1:1) in an experimental group or a control group.	Change from baseline naso-pharyngeal viral load quantified by RT-PCR at Day7 [ Time Frame: Day 7 ]	Not yet recruiting  Estimated Study Completion Date: July 1, 2020	Low

Prolastin Sponsor: Instituto Grifols, S.A	2020-001953-36	Spain	Phase 2, multicenter, randomized, open-label, parallel group, pilot study to evaluate the safety and efficacy of Prolastin in hospitalized subjects with COVID-19.  N=100 randomized to Prolastin + standard medical treatment or standard medical treatment alone.	The primary efficacy variable is the proportion of subjects dying or requiring ICU admission on or before Day 15 or who are dependent on invasive mechanical ventilation on Day 15.	Ongoing  Estimated primary completion: 2020-06-07	Medium
Alpha one antitrypsin inhalation Sponsor: Ministry of Health, Saudi Arabia	NCT04385836	Saudi Arabia	An early phase 1, randomized, single blinded trial of alpha one antitrypsin inhalation  N = 150 patient with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)	Clinical improvement [ Time Frame: we will follow the patient daily starting from the day 0 which is the first day of giving drug for 3 weeks or till clinical improvement and discharge from the hospital or till death whichever comes first. ]	Recruiting  Estimated Primary Completion Date: September 1, 2020	Medium
PUL-042 Toll like receptor 2/6/9 Agonist In a phase 2 study in stem cell transplant recipients. Sponsor: Pulmotect, Inc.	NCT04313023	Not yet provided	A Phase 2 Multiple Dose, Double blinded, placebo-controlled study. N=200 exposed patients (without COVID-19) randomised to PUL-042 or placebo	Prevention of COVID-19 [ Time Frame: 14 days ]	Not yet recruiting.  Estimated Study Completion: September 1 2020	High
PUL-042 Toll like receptor 2/6/9 Agonist In a phase 2 study in stem cell transplant recipients. Sponsor: Pulmotect, Inc.	NCT04312997	Houston, Texas, US	A Phase 2 Multiple Dose Double blinded, placebo controlled study. N=100 with COVID-19 without severe symptoms randomised to PUL-042 or placebo	Ordinal Scale for Clinical Improvement (score 1-8) [ Time Frame: 14 days ]	Not yet recruiting.  Estimated primary Completion: September 2020	High
RBT-9 (Stannous protoporphyrin) Sponsor: Renibus Therapeutics, Inc.	NCT04364763	Not stated	A phase 2, randomized, single-blinded, placebo-controlled study to evaluate the effect of RBT-9 on preventing progression of COVID-19  N = 252 non-critically ill adults who are at high risk due to age or comorbid conditions randomly assigned in a 2:1 ratio to receive Stannous protoporphyrin or placebo (normal saline).	Evaluate the effect of RBT-9(stannous protoporphyrin) versus placebo on clinical status of Covid-19 patients as measured using the 8-point World Health Organization (WHO) Ordinal Clinical Scale [ Time Frame: 28 days ]	Not yet recruiting  Estimated Study Completion Date: December 31, 2021	Medium
Resveratrol + vitamin D3 Sponsor: Marvin McCreary, MD, Mount Carmel Health System	NCT04400890  McCreary2020	Not stated	Phase 2, randomized double-blind placebo-controlled proof-of-concept trial of Resveratrol for the outpatient treatment of mild COVID-19.  N=200, Age ≥45 years	Hospitalization rates for COVID-19 [ Time Frame: 21 days from testing positive from COVID-19 ]	Not yet recruiting  Estimated Primary Completion Date: September 2020	Medium

			Randomized 1:1 to Resveratrol + vitamin D3 or placebo + vitamin D3.			
Saline Nasal Irrigation  Sponsor: Vanderbilt University Medical Center	NCT04347538	United States, Tennessee	Randomized, Open-label trial to evaluate the impact of Nasal Saline Irrigations on Viral Load in Patients With COVID-19.  N=90 randomized to one of three treatment groups: 1. Control - no intervention 2. intervention 1 - nasal saline irrigations BID 3. intervention 2 - nasal saline irrigations with ½ teaspoon surfactant (Johnson's baby shampoo) BID).	1.Change in SARS-CoV-2 mucosal immune response in the nasopharynx [ Time Frame: Day 1 to day 21 ]  2.Change in microbial load in the nasopharynx [ Time Frame: Day 1 to day 21 ]  3.Change in Viral Load in the nasopharynx over the course of COVID-19 infection [ Time Frame: Day 1 to day 21 ]	Not yet recruiting  Estimated Primary Completion Date: June 2021	Low
Bovine Lipid Extract Surfactant  Sponsor: Lawson Health Research Institute	NCT04375735	Not stated	A phase 1/2 randomized, open label trial to determine feasibility and safety of bovine lipid extract surfactant.  N = 20 COVID-19 positive patients and require MV due to progressive respiratory failure will be randomized to receive either 1) exogenous surfactant (BLES) or 2) treatment as usual	1.Adverse events (patient) - Decrease in oxygenation 2.Adverse events (patient) - Decrease in hemodynamics 3.Adverse event (healthcare worker) - Circuit breach 4.Adverse event (healthcare worker) - COVID-19 symptoms	Not yet recruiting  Estimated Primary Completion Date: January 1, 2021	Low
Senicapoc A Gardos channel blocker.	Eudract: 2020-001420-34	Denmark	Randomized, Open-Label, Phase II Trial N= 46 with covid-19 admitted to ICU randomized to senicapoc or standard treatment	PaO2/FiO2 ratio 72 hours after randomization.	Ongoing	Medium
Sn-protoporphyrin IX (SnPPiX) and sulfonated tetranaphthyl porphyrin  Sponsor: Kafrelsheikh University	NCT04371822	Egypt?	Phase 1, non-randomized, open-label trial  N=56 (28 covid-19 positive patients and 28 healthy volunteers) divided into 8 equal groups:  21 healthy subjects will be allocated to single dose of 9 mg, 27 mg, or 90 mg of Stannous Protoporphyrin.  7 healthy subjects will be administered a single dose of 9 mg of sulfonated tetra-anthracenyl porphyrin.  21 subjects with COVID-19 infection and Serum ferritin < 500 ng/ml will be	Lung injury score [ Time Frame: at 7and 14 days	Not yet recruiting  Estimated Study Completion Date: August 2020	Low

			<p>administered a single dose of 9 mg, 27 mg or 90 mg Stannous Protoporphyrin + CT chest scan.</p> <p>7 subjects with COVID-19 infection and Serum ferritin &lt; 500 ng/ml will be administered a single dose of 9 mg of sulfonated tetra-anthracenyl porphyrin + CT chest scan.</p>			
<p>Sodium Nitrite</p> <p>FDA approved Cyanide Antidote</p> <p>Sponsor: Hope Pharmaceuticals</p>	NCT04401527	Not stated	<p>Phase 2 multicenter, randomized, double-blind, placebo-controlled clinical trial will evaluate the efficacy and safety of intravenous Sodium Nitrite Injection for treatment of patients infected with COVID-19 who develop lung injury and require mechanical ventilation.</p> <p>N=200 adults with confirmed COVID-19. Randomization within 24 hours of intubation and mechanical ventilation due to respiratory failure from COVID-19 infection; Absolute lymphocyte count &gt; 800 / mm3.</p>	Survival with Unassisted Breathing [ Time Frame: Day 28 ] (proportion of study subjects who are alive and free of respiratory failure at Day 28).	Not yet recruiting	Medium
<p>Tradipitant (VLY-686 or LY686017) is an experimental drug that is a neurokinin 1 antagonist. It works by blocking substance P, a small signaling molecule.</p>	NCT04326426	Not stated	<p>Phase 3 Randomized, Double-blind, Placebo-controlled Study</p> <p>N=300 COVID-19 patients with Oxygen saturation less than 92% randomized to tradipitant or placebo</p>	Proportion of participants with normalization of fever and oxygen saturation by day 14	Enrolling by invitation; Estimated Primary Completion: August 1, 2020	High
<p>Ulinastatin</p> <p>Sponsor: Stanford University</p>	NCT04393311	United States, California	<p>Phase 1/2, multi-center, randomized, double-blind, placebo controlled study of the safety and efficacy of Ulinastatin for the treatment of COVID-19 in hospitalized patients.</p> <p>N=150 randomized to Ulinastatin or placebo.</p>	Time to recovery [ Time Frame: Up to 29 days ]	Not yet recruiting	High
<p>Ulinastatin</p> <p>Sponsor: Shanghai Changzheng Hospital</p>	ChiCTR2000030779	China: Shanghai and Hubei	<p>Phase 4, randomized, open-label, controlled trial.</p> <p>N=100 patients with severe and critical COVID-19-pneumonia randomized to conventional treatment+Ulinastatin injection or conventional treatment (control group).</p>	- Blood gas - SOFA score	Recruiting	Medium

Ulinastatin + Oral Chinese medicine "qingfei detoxification soup"  Sponsor: Wuhan Third Hospital	ChiCTR2000030806	China, Hubei	Phase 1, retrospective, observational study for the efficacy of ulinastatin combined with "clear lung detoxification soup" in the treatment of novel coronavirus pneumonia (COVID-19).  N=20  Oral Chinese medicine "qingfei detoxification soup" + intravenous injection of ulinastatin 200000 U Bid.	- Blood RT - ABG  [Time frame: Before treatment, 3 days, 6 days and 9 days after medication]	Recruiting  Study execute time: 2020-02-01 to 2020-03-31	Low
Vazegepant (BHV-3500)  Sponsor: Biohaven Pharmaceuticals, Inc.	NCT04346615	United States, Pennsylvania	Double-Blind, Randomized, Placebo Controlled trial on the safety and efficacy of Vazegepant Intranasal (IN) for hospitalized patients with COVID-19 requiring supplemental oxygen.  N=120 randomized to Vazegepant (10 mg intranasal (IN) for 14 days) or placebo	Efficacy will be measured by examining the percentage of subjects reported as being in each category of a 6-point, ordinal, severity rating scale at Day 15.	Recruiting  Estimated Primary Completion Date: July 2020	Medium

Link to WHO's list of studies for the treatment of COVID-19, updated March 21<sup>st</sup> 2020:

[https://www.who.int/blueprint/priority-diseases/key-action/Table\\_of\\_therapeutics\\_Appendix\\_17022020.pdf?ua=1](https://www.who.int/blueprint/priority-diseases/key-action/Table_of_therapeutics_Appendix_17022020.pdf?ua=1)